

PATENT LAW REVISION

HEARINGS
BEFORE THE
SUBCOMMITTEE ON
PATENTS, TRADEMARKS, AND COPYRIGHTS
OF THE
COMMITTEE ON THE JUDICIARY
UNITED STATES SENATE
NINETIETH CONGRESS
SECOND SESSION
Pursuant to S. Res. 37
ON
S. 2, S. 1042, S. 1377, S. 1691, S. 2164, S. 2597

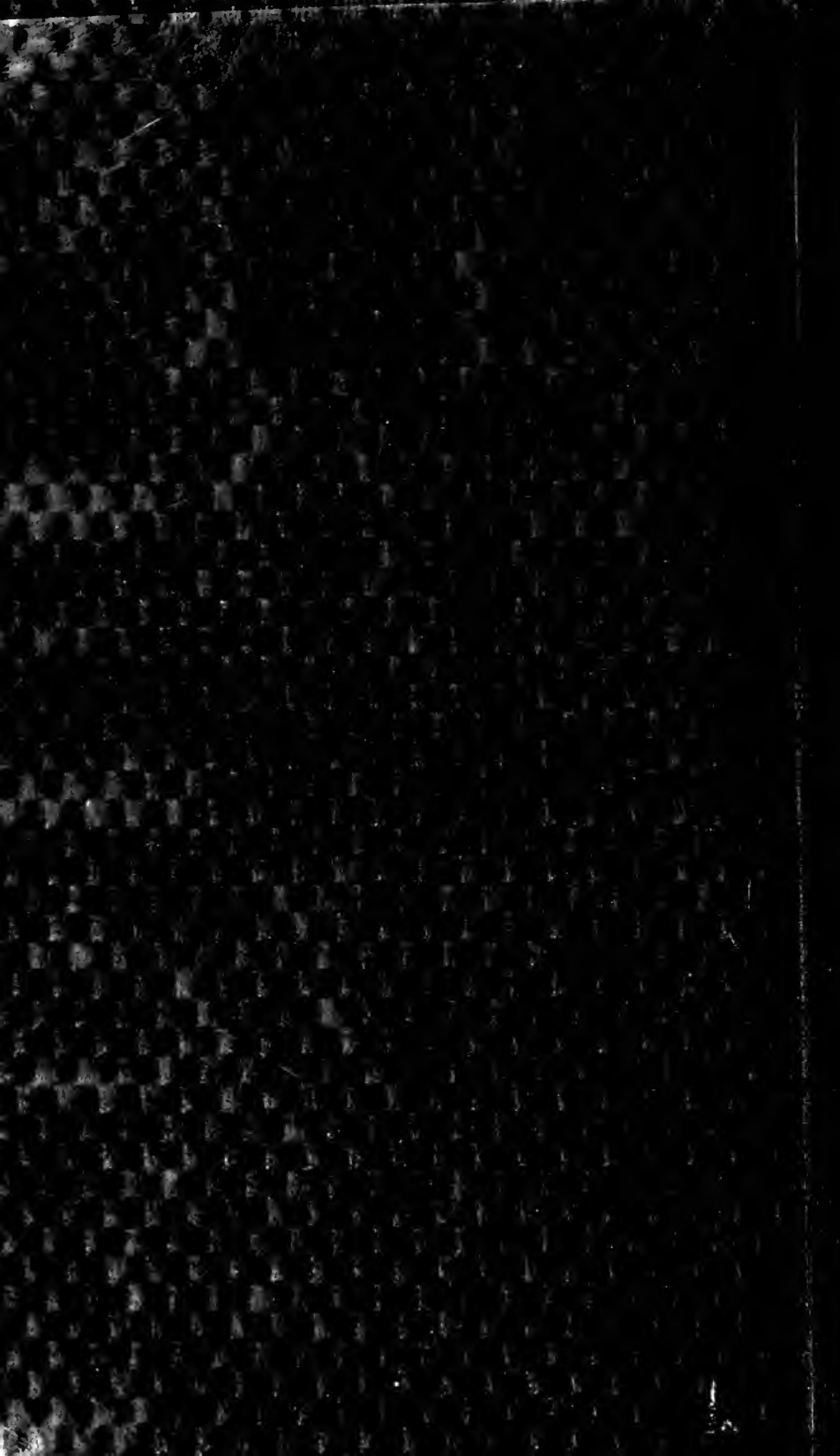
PART 2

JANUARY 30, 31, AND FEBRUARY 1, 1968



Printed for the use of the Committee on the Judiciary

NORTHEASTERN UNIVERSITY SCHOOL of LAW LIBRARY



PATENT LAW REVISION

HEARINGS

BEFORE THE

SUBCOMMITTEE ON
PATENTS, TRADEMARKS, AND COPYRIGHTS
OF THE

COMMITTEE ON THE JUDICIARY
UNITED STATES SENATE

NINETIETH CONGRESS

SECOND SESSION

Pursuant to S. Res. 37

ON

S. 2, S. 1042, S. 1377, S. 1691, S. 2164, S. 2597

PART 2

JANUARY 30, 31, AND FEBRUARY 1, 1968



Printed for the use of the Committee on the Judiciary

NORTHEASTERN UNIVERSITY SCHOOL of LAW LIBRARY

Northeastern University



School of Law
Library

PATENT LAW REVISION

HEARINGS
BEFORE THE
SUBCOMMITTEE ON
PATENTS, TRADEMARKS, AND COPYRIGHTS
OF THE
COMMITTEE ON THE JUDICIARY
UNITED STATES SENATE
NINETIETH CONGRESS

SECOND SESSION

Pursuant to S. Res. 37

ON

S. 2, S. 1042, S. 1377, S. 1691, S. 2164, S. 2597

PART 2

JANUARY 30, 31, AND FEBRUARY 1, 1968

Y4.J89/2/P87/30/P2



NORTHEASTERN UNIVERSITY SCHOOL of LAW LIBRARY

Printed for the use of the Committee on the Judiciary

U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1968

COMMITTEE ON THE JUDICIARY

JAMES O. EASTLAND, Mississippi, *Chairman*

JOHN L. McCLELLAN, Arkansas

SAM J. ERVIN, JR., North Carolina

THOMAS J. DODD, Connecticut

PHILIP A. HART, Michigan

EDWARD V. LONG, Missouri

EDWARD M. KENNEDY, Massachusetts

BIRCH BAYH, Indiana

QUENTIN N. BURDICK, North Dakota

JOSEPH D. TYDINGS, Maryland

GEORGE A. SMATHERS, Florida

EVERETT MCKINLEY DIRKSEN, Illinois

ROMAN L. HRUSKA, Nebraska

HIRAM L. FONG, Hawaii

HUGH SCOTT, Pennsylvania

STROM THURMOND, South Carolina

SUBCOMMITTEE ON PATENTS, TRADEMARKS, AND COPYRIGHTS

JOHN L. McCLELLAN, Arkansas, *Chairman*

PHILIP A. HART, Michigan

QUENTIN N. BURDICK, North Dakota

HUGH SCOTT, Pennsylvania

HIRAM L. FONG, Hawaii

THOMAS C. BRENNAN, *Chief Counsel*

EDD N. WILLIAMS, JR., *Assistant Counsel*

(II)

AUG 28 1972

CONTENTS

Statement of:

Howard J. Samuels, Under Secretary of Commerce; accompanied by Edward J. Brenner, Commissioner of Patents.....	Page 384
Edward J. Brenner, Commissioner of Patents; accompanied by Michael K. Kirk, Office of Legislative Planning, U.S. Patent Office.....	387
Hon. Gaylord Nelson, a U.S. Senator from the State of Wisconsin....	398
Edward F. McKie, Jr., chairman of the Section of Patent, Trademark, and Copyright Law of the American Bar Association; accompanied by William E. Schuyler, Jr., Esq.....	412
Hon. Everett M. Dirksen, a U.S. Senator from the state of Illinois, statement.....	442
George F. Metcalf, vice president, Aerospace Group, Martin Marietta Corp., on behalf of the U.S. Chamber of Commerce; accompanied by E. W. Adams, Jr., patent attorney, Bell Telephone Laboratories, Inc.....	448
R. L. Heindel, Manufacturing Chemists Association, Inc. (MCA); accompanied by J. Arthur Young, patent counsel, Phillips Petroleum Co.....	463
W. Brown Morton, Jr., Esq., a lawyer engaged in the private practice of patent, trademark, and copyright law.....	475
Graham McGowan, general counsel, Electronic Industries Association; accompanied by William J. Keating, AMP, Inc., and John P. Ryan, Globe Union, Inc.....	506
Helge Holst, chairman of the board, American Tool and Machine Co., on behalf of National Association of Manufacturers; accompanied by Reynold Bennett National Association of Manufacturers....	519
Robert W. Cairns, president, American Chemical Society; accompanied by Pauline Newman, chairman, American Chemical Society committee on patent matters and related legislation.....	527
Eben M. Graves, president, American Patent Law Association.....	534
Ralph R. Browing, past president, Houston Patent Law Association; accompanied by John Kirk, Houston Patent Law Association.....	574
Henry J. Cappello, president, Space Recovery Research Center, consultant to National Small Business Association.....	610
Howard I. Forman, chairman, National Council of Patent Law Associations, accompanied by Andrew R. Klein.....	617
Floyd S. Ingersoll, president, Illinois Foundation Seeds, Inc., Champaign, Ill., representing American Seed Trade Association; accompanied by Dr. George Rea Walker, Stoneville Pedigreed Seed Co., Stoneville, Miss.; Dr. Jim Neeley, Coker's Pedigreed Seed Co., Hartsville S.C.; Donald Messenheimer, Esq., Washington, D.C.; John I. Sutherland, executive vice president, and J. Ritchie Smith, National Cotton Council, Memphis, Tenn.....	638
Jim Neeley, Coker's Pedigreed Seed Co., Hartsville S.C.....	641
Dr. George Rea Walker, Stoneville Pedigreed Seed Co., Stoneville, Miss.....	642
J. Ritchie Smith, assistant director of research, National Cotton Council of America, Memphis, Tenn.....	646
John M. Poehlman, professor of agronomy, University of Missouri....	670
Iver C. Maedougall, director, law department, Stauffer Chemical Co....	673
Ernest K. Bean, director and past president, the Cleveland Patent Law Association; accompanied by John F. Pearne, president, the Cleveland Patent Law Association.....	680
Albert L. Gazzola, president, American Association of Registered Patent Attorneys and Agents.....	702
Karl F. Ross, American Association of Registered Patent Attorneys and Agents.....	702

APPENDIX

	Page.
Reports of departments and agencies:	
Agriculture, Department of, on Amendment No. 511 to S. 1042	715, 883
Atomic Energy Commission, on S. 2597	718
Commerce, Department of, on S. 2597	720
Commerce, Department of, on S. 1042	737
Commerce Department of, on amendment No. 511 to S. 1042	884
Justice, Department of, on S. 2597	739
National Aeronautics and Space Administration, on S. 2597	740
Office of Science and Technology, on S. 2597	745
Treasury, Department of, on S. 1042	745
Letters and statements:	
Aerospace Industries Association of America, Inc.	746
American Association of Nurserymen	748
American Farm Bureau Federation	748
American Seed Trade Association, Inc.	748
Applied Data Research, Inc.	751
Bar associations:	
Chicago Bar Association	753
The Bar Association of the District of Columbia	755
State Bar of Michigan	760
The Association of the Bar of the City of New York	762
The State Bar of Texas	772
Bell Telephone Laboratories	776
Francis C. Browne	780
R. E. Carnahan, Ph.D.	781
Crop Science Society of America	782
Logan R. Crouch	783
Delta & Pine Land Company of Mississippi	783
Donald G. Daus, letters and article from Economic Botany	787
Richard E. Dihnner, letters	794
E. S. Downs & Co., letter	796
Joseph O. Evans, statement	797
Senator Sam J. Ervin, Jr., letter enclosing statement concerning amendment 511 to S. 1042	799
Foremost Foods Co., letter and statement	800
Harry Goldsmith, letter and article from Journal of Patent Office Society	803
Illinois State Chamber of Commerce, letter and statement	810
Industrial Nucleonics Corp., letter	811
Maumee Chemical Co., letter and statement	812
Harold S. Meyer, letter and article from Journal of the Patent Office Society	817
National Canners Association, statement	823
The National Cash Register Co., letter and statement	824
National Society of Professional Engineers, letter	827
Senator Gaylord Nelson, letter enclosing letter from Commissioner of Patents	830
North Carolina Crop Improvement Association, Inc., letter	830
Patent law associations:	
The Patent Law Association of Chicago	830
Milwaukee Patent Law Association	832
New Jersey Patent Law Association	835
The New York Patent Law Association	845
The Philadelphia Patent Law Association	847
Joseph Rossman, letter and article from the Journal of the Patent Society	848
William E. Schuyler, Jr., letter	859
Smith Kline & French Laboratories, William H. Edgerton, manager of patent department	859
Stark Bros. Nurseries & Orchards Co., letter and attachment regarding amendment 511 to S. 1042	862
Hon. John G. Tower, a U.S. Senator from the State of Texas, statement	877
Trademark Society, Inc., letter and statement	879
Westinghouse Electric Corp., letter	880

FOR THE GENERAL REVISION OF THE PATENT LAWS

TUESDAY, JANUARY 30, 1968

U.S. SENATE,
SUBCOMMITTEE ON PATENTS,
TRADEMARKS, AND COPYRIGHTS OF THE
COMMITTEE ON THE JUDICIARY,
Washington, D.C.

The subcommittee met, pursuant to call, at 10:15 a.m. in room 3302, New Senate Office Building, Senator John L. McClellan (chairman) presiding.

Present: Senators McClellan (presiding) and Fong.

Also present: Thomas C. Brennan, chief counsel, Edd N. Williams, Jr., assistant counsel; Stephen G. Haaser, chief clerk, Subcommittee on Patents, Trademarks, and Copyrights; George S. Green, professional staff member, Committee on the Judiciary.

Senator McCLELLAN. The committee will come to order.

The Chair wishes to make a very brief statement for the record.

The subcommittee today is resuming public hearings on general revision of the patent law.

At the opening of the hearings last May, I indicated that I had introduced the administration's bill by request, and had taken no position with respect to its many provisions.

The subcommittee is aware that many of the recommendations made by the President's Commission on the Patent System and incorporated in S. 1042 are highly controversial.

I stated last year that there may well be constructive alternatives to the administration's bill, but that there was a responsibility on the part of those who oppose the recommendations of the President's Commission to present their own proposals to meet the problems confronting our patent system.

Since our previous hearing, Senator Dirksen has introduced S. 2597, which represents a complete alternative to the administration bill. Other bills and amendments have also been introduced and referred to the subcommittee.

The Department of Commerce has studied the previous testimony, as well as the various alternative proposals, and have requested the opportunity to testify today for the purpose of suggesting certain modifications in the administration bill. I therefore welcome the Acting Secretary of Commerce, Mr. Howard J. Samuels and his associates.

Mr. Samuels, you may proceed.

**STATEMENT OF HOWARD J. SAMUELS, UNDER SECRETARY OF
COMMERCE; ACCOMPANIED BY EDWARD J. BRENNER, COMMIS-
SIONER OF PATENTS**

Mr. SAMUELS. Thank you very much, Senator.

I appreciate very much the opportunity to be here today to discuss the patent law revision legislation pending before this subcommittee. We in the Commerce Department think this legislation is not only important to the expansion of American industry here but also to our future in international trade.

Accompanying me here today is the Honorable Ed Brenner, our Commissioner of Patents, who will discuss in detail the posture of the Department of Commerce on the key provisions of S. 1042, S. 2164, and S. 2597.

I appear before this subcommittee today in a dual capacity. Not only do I appear as a representative of the Department of Commerce, but I also appear as a businessman who only 3 months ago headed a company which saw some of the strengths and weaknesses of our present patent system. This company was built from an idea which I first had back at MIT over 25 years ago. When I left the company it was doing almost \$100 million worth of business, basically in the plastic packaging business. So my personal experiences I think provide a clear example of the fact that this is still a nation of great opportunity, and the fact that ideas properly developed can become innovations and can foster profitable new industry.

My experience has given me appreciation, frankly, Senators, of the need for reform of our present patent system, and I am particularly impressed with the suggestions that have been made by the President's Commission.

The current interest in the reform of our patent law had its origin in the concern of the President in 1965 that the patent system was not adequately equipped to promote scientific and technological advances in the context of today's world. As we all know, this is an age of rapid and accelerating change, and we must see to it that our patent system is efficient, flexible, and will advance rather than hinder the spread of new technology.

It is estimated that in the past 15 years we have stored as much new material in the technical literature as in all of previous recorded history. There is no adequate measure of the pace of technological change, but it is clear that the lagtime between the idea and innovation is narrowing. In such an era, the nation which does not take maximum advantage of new ideas and new technology will fall behind in the fierce competition for markets, and thus its people will suffer.

The patent system should be a powerful tool for encouraging innovation, and for aiding in technology transfers. In its present form, it was designed for a slower moving, simpler technology. We at the Commerce Department feel very strongly that the Patent Office has done a fine job of streamlining and expediting, but that fundamental changes are needed in the patent process—changes, Senators, which are now being sought in the legislation that is before Congress.

I think everybody recognizes the need for pressing a modernization of our patent system so that it can become an effective instrument in the context of today's technology and information explosion.

Another consideration calling for prompt action results from developments in the international area.

I know you are familiar with the fact that exports are becoming a very important part of the American industrial scene. I think you may recall that we mentioned in earlier hearings that the President in his letter of transmittal had noted that the patent reform bill would bring the U.S. patent system more closely in harmony with those of other nations. Subsequent to our testimony last year, the first draft of the Patent Cooperation Treaty was released.

I might say that Commissioner Brenner has been a very active participant in this important area.

This proposed treaty, if adopted, would greatly simplify and reduce the expense of obtaining patents worldwide, and would enhance international trade, the exchange of technology and economic development. The draft of this treaty is now being revised, and I am sure, Senators, you can appreciate the difficulties that our representatives will encounter in attempting to plan for a patent treaty with the legal structure of our patent system being so unsettled. I think this makes it very important that we get some action on the patent bill this year.

The reform and modernization which the patent reform bill would bring about in our patent system reflects the goals which the Commission has established for its guidance. These objectives were recognized by the President in mentioning the purposes of the bill.

To raise the quality and reliability of U.S. patents.

To reduce the time, and, I underline, expense of protecting a patent.

To speed the public disclosure of scientific and technological information.

The proposals in the patent reform bill are far reaching and fundamental, and would change familiar laws and procedures. For these reasons, if for no other, they are controversial, and have prompted counter proposals designed to achieve the objectives outlined by the President's Commission. Some of these proposals, if properly modified, would, we believe, go far to achieve these objectives.

For instance, concluding that technological advances should be published promptly, the Commission recommended that, where two people separately apply for a patent on the same invention, it should issue to the first to file an application rather than the first to complete the invention.

The Commission also recommended that all patent applications should be published within 24 months from filing. In our view, these two recommendations, which are adopted in the patent reform bill, will achieve early disclosure of scientific advances.

On the other hand, some elements of the private sector, concerned with the Commission's recommendations of a first-to-file system, have proposed modifications of the administration's bill which are designed to achieve the Commission's goals.

One alternative to a strict first-to-file system, which we find generally acceptable, involves imposing a time limit on how far back a party to an interference could go in proving that he was a prior inventor. Limitations of this type emphasize the desirability of early filing and thus aid in achieving the Commission's goals. Of course,

any modification of the first-to-file system should provide equal treatment for both U.S. and foreign applicants.

Similarly, we have reexamined the need for mandatory publishing of applications within 24 months after filing. In view of the reforms in application processing that we have initiated in the Patent Office, the time required has been greatly reduced now, and further reductions are in prospect. Consequently, we now feel that publication prior to the issuance of a patent is essential only in the cases where there will be long delays, such as those involving appeals or interferences.

Undoubtedly, the final law when it is passed will represent not only the best thinking of the Government and interested parties such as the bar associations, but also the willingness of these parties to seek balanced legislation which is fair to all, and will meet the objectives of our Nation.

In a moment Commissioner Brenner will discuss all the modifications in our position which have resulted from our exchange of views with the private sector.

I would like to take this opportunity, Senators, to express my appreciation of the work of the fine citizens from both the private and public sectors who answered the President's call to serve on the Commission which evaluated and identified areas for improvement in our patent system.

Under the guidance of the Cochairmen, Dr. Harry Huntt Ransom, the chancellor of the University of Texas, and Simon H. Rifkind, formerly a Federal judge and presently a noted trial attorney, the Commission held 13 meetings for a total of 31 days. They received and considered comments on the patent system from all interested sectors of the public. The Report of the President's Commission on the Patent System was transmitted to the President in November 1966.

The members were in unanimous agreement that the "patent system today is capable of continuing to provide an incentive to research, development, and innovation." They could discover "no practical substitute for the unique service it renders."

Eliciting thoughtful response from both the Congress and interested individuals, companies and associations, the Commission's findings have set us upon a road of inquiry which will lead—I am convinced—to a stronger, more effective patent process adequate to the needs of the decades ahead.

I thank you, Senator, and your committee, for this opportunity to express the views of the Department of Commerce on this patent reform legislation. We will be pleased to provide any additional assistance or advice which the subcommittee may desire.

Thank you very much.

Senator McCLELLAN. Thank you, Mr. Secretary.

I have given personal consideration to these suggested changes in your original proposal. They seem to have merit. They seem to be moving in the direction of a satisfactory middle ground, where we can get some very good revision and yet preserve the integrity of that system as we have it. I am impressed with what you have suggested.

Mr. SAMUELS. Thank you, Senator.

Senator McCLELLAN. Of course we will study it further and there may be other good suggestions, but my first impression is that your proposed modifications are very good.

Mr. SAMUELS. Thank you very much, Senator.

Senator McCLELLAN. Thank you, sir.

Very well, Mr. Commissioner.

Commissioner Brenner, we welcome you this morning.

As you know, this committee must rely very heavily upon you and upon your counsel and expertise in this field. We are very glad to have you come before us again and give your comments on this important legislation.

**STATEMENT OF EDWARD J. BRENNER, COMMISSIONER OF PATENTS;
ACCOMPANIED BY MICHAEL K. KIRK, OFFICE OF LEGISLATIVE
PLANNING, U.S. PATENT OFFICE**

Mr. BRENNER. Thank you very much, Mr. Chairman.

At the table here with me is Mr. Michael Kirk of our Office of Legislative Planning of the Patent Office.

Senator McCLELLAN. Mr. Kirk?

Mr. BRENNER. Mr. Kirk.

Senator McCLELLAN. Very well.

Mr. BRENNER. Mr. Chairman and members of the subcommittee, I appreciate the opportunity to appear today to discuss the patent reform measures being considered by this subcommittee. As you know, the views of the Department of Commerce on the patent reform bill, S. 1042, were given to the subcommittee in the hearings in the first session of this Congress. In those hearings we briefly explained the provisions of the reform bill and expressed our support for them.

Today, I propose to give you the present views of the Department of Commerce on patent reform legislation in the context of commenting on S. 2597, the bill introduced by Senator Dirksen and generally supported by the patent section of the American Bar Association. I will also discuss briefly S. 2164, a bill introduced by Senator Yarborough for himself and Senator Tower.

Senator McCLELLAN. May I interrupt for a moment? I had announced that that bill would be received and testimony received on it. I think the record is clear. We will direct that the record so indicate that his bill is being considered.

All right, Mr. Brenner.

Mr. BRENNER. S. 2597, introduced in the Senate on October 30, 1967, adopts seven of the Commission's recommendations and partially adopts and contains modifications of several others.

In commenting on S. 2597, I will not discuss each of the provisions of that bill but rather, to explain our present position with regard to patent reform legislation, will comment principally on those provisions which, with varying degrees of modification, we feel we could support. In addition, I will make a few comments about the provisions of S. 2597 which are not included in the patent reform bill and which we oppose. With regard to the remainder of the provisions in S. 2597 which differ from corresponding provisions in S. 1042 and which I do not otherwise discuss today, I would like to refer the committee to the comments of the Department of Commerce contained in our letter of January 24, 1968, on this subject to Senator Eastland. These comments not only represent the position of the Department of Commerce, but

also have the full support of the Department of Justice and the Office of Science and Technology.

Senator McCLELLAN. Would you want that letter made a part of the record?

Mr. BRENNER. Yes, sir; I would appreciate that.

Senator McCLELLAN. I notice it is a very lengthy letter. Let it be filed as an exhibit as of now, and later we may publish it in the appendix of the hearing.

(The letter referred to was made a part of the appendix.)

Mr. BRENNER. Yes, sir.

Senator McCLELLAN. Very well. You may proceed.

Mr. BRENNER. Priority systems.

Under section 137 of S. 2597, a patent would be issued to the first to file with subsequent applicants having the right to provoke an interference proceeding. Once an interference was declared, either party could go back an unlimited period of time to prove priority of invention by acts known only to himself and his close associates. There would be no more incentive for an inventor to promptly enter the patent system than there is today.

In addition to the substantive first-to-invent rule of existing law, S. 2597 would also retain the prior inventorship defense and provide the opportunity for anyone to oppose the issuance of a patent on this ground during the citation period under section 136(d)(3). Under this section, a prior inventor who chose not to enter the patent system for its intended purpose or to publicly disclose would be permitted to destroy the rights of a subsequent inventor who entered the patent system promptly and used it for its constitutional purpose. In addition, it would appear that applicants could oppose the issuance of a patent on the ground of prior inventorship under section 136(d)(3) and, failing to prevent the issuance of a patent under this section, could also provoke an interference with the issued patent under section 137.

The priority system which would be established by S. 2597 would do little to accelerate the public disclosure of technological advances. If priority contests are to be retained in the patent law as proposed in S. 2597, we would urge that strong incentives encouraging prompt entry into the patent system and for early public disclosure be built into the system. Of the proposals which have been advanced, the 1-year limitation suggested by the American Chemical Society, in our view, best achieves this goal.

I would like to discuss briefly how the provisions of S. 2597 might be joined with the suggestion of the American Chemical Society. First, the patent should issue to the first to file as generally provided by S. 2597 with junior party applicants having the right to contest priority under the provisions of section 137.

A party to an interference proceeding would be permitted to prove all earlier dates but could only obtain the benefit of a date of invention no earlier than 1 year prior to his earliest effective U.S. filing date. In the case of a foreign applicant, this would be his convention filing date and he would be permitted to establish a date of invention no more than 1 year prior to this date. All applicants, foreign and domestic, could establish this date through proof of acts in any country.

Since each party to an interference would only be permitted to establish a date of invention no more than 1 year prior to his filing date, interferences would not be declared between applicants having filing dates more than 1 year apart. Since there would be limited priority contests in a modified first-to-file system, the 1-year grace period of existing law could be retained. Accordingly, preliminary applications, recommended principally as a substitute for the grace period, would no longer be necessary.

Although the American Chemical Society's proposal can be blended with S. 2597 with respect to who is entitled to a patent under section 137, it cannot be as readily incorporated into section 136(d) (3) of the citation period. The problem simply stated is this: An applicant could readily be limited to a date of invention no earlier than 1 year from his effective filing date, but from what date would a third party who has no filing date be limited? We have considered several possible alternatives.

One alternative would be to permit third parties to oppose the issuance of a published application on the ground of prior inventorship and to not impose any limits on either party with respect to how far back he could go to establish a date of invention. This solution has a certain logic to it since an applicant, even if limited with regard to the date of invention on which he could rely, would often prove his earliest acts in order to establish a completion of his invention. On the other hand, opposition contests based on prior inventorship in which each party could go back an unlimited period would invite the submission of complex and sometimes questionable proofs.

A second alternative which has been considered is to permit third parties who have not filed a patent application within 1 year of the patent applicant to oppose the issuance of a patent on a published application on the ground of prior inventorship but limit each party to a date of invention no earlier than 1 year prior to his earliest performance of one of the following acts: (1) Publication, (2) public use or placing on sale in the United States, or (3) in the case of the patent applicant, the filing of his patent application (based on earliest effective U.S. filing date). This solution has the advantages of encouraging the publication of advances in technology while minimizing proofs going back a number of years.

A third alternative involves the elimination of the prior inventorship defense from the patent laws. According to this solution, a third party could not invalidate a patent on the ground of prior inventorship but would be permitted to establish a continuing user right under certain circumstances. For instance, this could be implemented by giving a continuing user right to a third party who placed the invention on sale or in commercial use in the United States prior to both an earlier such act by the patentee and the earliest effective filing date of the patentee. This approach would encourage prompt publication of scientific advances and would eliminate the need for proving a date of invention by third parties. In addition, this system would not discriminate against foreigners.

There are undoubtedly other solutions for this problem. Each of the solutions I have recommended is feasible. I would like to express our willingness to work both with the private sector and the subcommittee in an effort to define an optimal system.

S. 2597 retains, in section 104, the discrimination in the existing law against foreigners with regard to proving acts in foreign countries to establish a date of invention. We would strongly urge that if priority contests are to be retained, all applicants, foreign and domestic, be permitted to establish a date of invention by proof of acts in foreign countries.

Before I leave this subject, however, I would like to suggest that the proceedings specified in subsection 136(d)(2) and subsection 136(d)(3), if retained in S. 2597, not be permitted during the citation period, but rather that such proceedings be conducted after a patent has issued. The determination of who invented a particular invention or who was the first to invent a particular invention often results in protracted proceedings which could materially delay the issuance of a patent if permitted during the citation period. In our view, subsection 136(d)(2) and subsection 136(d)(3), if retained, should be incorporated into section 137.

The priority system I have just outlined would, in our view, provide a good compromise between the first-to-file provisions of S. 1042 and the first-to-invent provisions of S. 2597. This system, which we feel is properly described as a modified first-to-file system, offers the flexibility desired by the private sector and yet contains strong incentives to achieve the objective of encouraging prompt disclosure of scientific advances as outlined by the Commission.

As I mentioned, preliminary applications would no longer be necessary in a modified first-to-file system having a 1-year grace period; however, we do feel that regular applications could be made more useful by liberalizing the present rules regarding the time at which certain portions of the application would be required to be filed. For instance, we believe significant advantages could be derived if applicants were permitted to defer for a period of 1 year the submission of claims, formal patent drawings and the examination fee (e.g., present filing fee less \$10). Except for the omitted items, the application would be identical to any other application and would contain a complete disclosure. If the omitted elements were not furnished within 1 year from filing, the application would become abandoned. When submitting the omitted elements, applicants could elect to make the first complete application either a regular U.S. application or an international application under the provisions of the proposed Patent Cooperation Treaty.

The liberalization of the rules regarding the time for submitting the various elements of the application would have several advantages for applicants. For instance, if an applicant, after monitoring progress of the invention for 1 year, decided that it was economically prudent to abandon the application, he would save all but \$10 of the present filing fee as well as the cost involved in providing the claims and formal patent drawings. Also, if an applicant decided to file an international application, this plan would greatly facilitate its filing. In those cases where it was determined that it was not practical to continue prosecution of the application, an applicant could obtain protection by publishing the application for a statutory publication fee. Finally, where an applicant was undecided about continuing prosecution of the application, the savings to be realized through its abandonment might encourage him to abandon the application, thereby reducing the workload of the Patent Office.

AUTOMATIC PUBLICATION

Another major proposal in the Commission's plan for accelerating the public disclosure of new technology was that which would require the automatic publication of patent applications within 18 to 24 months from the date of filing. S. 1042 adopts this recommendation in section 123.

As Under Secretary Samuels pointed out, this recommendation followed from the Commission's conclusion that early publication would prevent needless duplication of work, promote additional advances based on the information disclosed and apprise entrepreneurs of their potential liability. S. 2597 does not contain provisions for automatic publication within 18 to 24 months.

The recommendation for automatic publication has been the center of considerable concern by the private sector. Some hold to the point of view that an inventor should not be forced to reveal his invention to the public until he has been given an indication of the scope of the patent protection which he might expect to obtain.

Although I don't necessarily subscribe to this point of view, the issue of automatic publication becomes less intense in view of our projected work schedules under which examination of most applications will be completed and patents issued within 24 months. Assuming the continued capability of the Patent Office to process patent applications in a reasonably prompt fashion, the only cases where any form of automatic publication would be essential would be those where protracted proceedings could be expected as where there is an appeal or an interference proceeding.

REISSUE

The patent reform bill adopts the Commission's recommendation that claims should not be broadened in a reissue application. This recommendation followed from its conclusion that the public should be free to use the unclaimed disclosure in an issued patent without the possibility that it might subsequently be included in broader claims in a reissued patent.

S. 2597, on the other hand, would permit broadened reissues if filed within 1 year of the granting of the original patent. We regard this recommendation as a reasonable compromise between the recommendation of the Commission and the existing law which permits broadened reissues to be granted within 2 years of the issued patent. Not only is the public interest protected by the reduction of the period for filing reissues from 2 years to 1, but we feel that there are equities in favor of granting broadened reissues where there is so much emphasis placed on prompt filing and prosecution of patent applications. To insure that the public interest is fully protected, however, we would urge that the provision protecting the intervening rights of third parties be amended to provide for the continued practice of an invention without the payment of royalties where substantial preparations for such practice were made prior to the issuance of the reissue patent.

PRESUMPTION OF CORRECTNESS

The Commission recommended that a Patent Office decision refusing a claim should be given a presumption of correctness and shall not be

reversed unless erroneous. The patent reform bill adopts this standard for review in section 148. S. 2597 contains no provisions regarding the presumption to be given a Patent Office decision denying a claim.

Some members of the private sector have expressed the opinion that this provision, as written in S. 1042, goes too far and that it might possibly lead to arbitrary decisions on the part of examiners. In our view, there is no logical basis for a statutory presumption that a decision of an administrative agency is correct only when in favor of a petitioning party. We do feel, however, that the first half of the provision in S. 1042 is sufficient to accord the proper weight to the decisions of the Patent Office and would therefore recommend deletion of the phrase "and such decisions shall be upheld unless it is without substantial basis or not in accordance with law."

INTERIM LIABILITY

Because of the recommendation of preissuance publication of applications, the Commission recommended that a patentee whose claims were infringed during the interim period between publication of the application and the issuance of a patent be given some degree of protection. S. 1042 adopts this recommendation of the Commission by providing for interim liability for the unauthorized practice of a claim of a published application where the Patent Office has indicated that the claim is allowable and the alleged infringer has been given actual notice as to how the acts are considered to have infringed the claim. Under the patent reform bill, an applicant elects to obtain interim liability by his transmittal of the notice to the alleged infringer and cannot thereafter obtain an injunction with regard to the use of a machine, manufacture or composition of matter which is made prior to the issuance of a patent.

S. 2597, on the other hand, while providing for interim liability, only requires that the application be published, that the infringed claim also appear in the issued patent, and that actual notice be given to the infringer. S. 2597 does not require a prior indication by the Patent Office that the claim is allowable. In addition, an applicant does not elect between an injunction or damages until he brings suit following the issuance of the patent.

We feel that the interim liability provisions of S. 2597 provide some advantages over those of S. 1042. By permitting interim liability from the date of publication for the infringement of a claim which later appears in the patent, even though the claim is not allowed at the time of publication, the interim liability provisions of S. 2597 encourage early voluntary publication. A corollary of this feature is that S. 2597 would permit interim liability where appealed claims were ultimately allowed, a result we feel is desirable since we support publishing upon appeal. Moreover, the interim liability provisions of S. 2597 permit the applicant the flexibility of electing his remedy—injunction or damages—at a later date when he is in a position to have a better understanding of the total situation. For these reasons we feel that the interim liability provisions of S. 2597 might well be included in any patent reform legislation.

CLAIM FOR PRIORITY DATE

The patent reform bill adopts the recommendation of the President's Commission that a claim for a priority date must be made when the complete application is filed. The Commission's recommendation followed from its conclusion that early knowledge of the priority date on which an applicant intends to rely would be necessary for a proper determination, without wasted effort on the part of the Patent Office, of what references could be used as prior art against an application.

S. 2597, on the other hand, requires that a claim for foreign priority must be made at the time of filing but permits amendment during examination or reexamination of the application. It requires a claim for priority based on an earlier filed U.S. application to be made at the time of filing or by amendment thereof.

We support the proposal of the Commission for claiming priority of an earlier application at the time of filing. However, there are some instances in which we believe it would be equitable to permit amendment of such a claim; for instance, where the later application no longer claims the subject matter of the earlier application or where the applicant can show due cause for his failure to assert the priority claim at the time of filing. Accordingly, we would recommend that an applicant be permitted to amend his claim of priority upon a showing of due cause.

UNIVERSAL PRIOR ART

One of the most controversial of the provisions of S. 1042 is the proposal of the Commission for universal prior art, under which foreign knowledge, use, and sale of an invention would be relevant in determining whether a U.S. patent would be issued on the invention. This recommendation followed the Commission's conclusion that adoption of such a standard by the United States would be an important step toward promoting the acceptance of a common definition of universal prior art to be applied by the patent systems of the other countries.

S. 2597 retains the existing geographic boundaries on prior art.

Those in the private sector who question the proposal for a universal prior art definition argue that such a standard would increase the cost of patentability determinations and patent prosecution and litigation by including a body of nondocumented prior art. They also point out that, since the exact definition of a universal prior art standard has not yet been precisely defined, any move by the United States to adopt such a standard would be premature and might, in fact, impede efforts to achieve a universal definition.

We feel that a universal prior art standard will ultimately be adopted; however, we also feel that it is premature at the present time to incorporate this standard into the laws of this country. Therefore, while it is still quite important for this country to cooperate in the efforts to define a universal standard of prior art, we would not recommend that a universal standard of prior art be included in any patent reform measures at the present time.

COMPUTER PROGRAMS

The Commission recommended that computer programs be specifically excluded from patentable subject matter and that all pro-

visions in the patent statute for plant patents be deleted and another form of protection for plants be provided.

The Commission's recommendation to exclude computer programs from patentable subject matter followed from its view that searches would not be feasible in this area and that the creation of programs had undergone substantial and satisfactory growth in the absence of patent protection. Section 106 of S. 1042 implements this recommendation of the President's Commission. S. 2597, on the other hand, contains no similar or analogous provision.

We have taken the view that computer programs are not patentable under present law, and we shall continue to deny applications for patent on computer programs *per se*. It is our opinion, however, that there are substantial difficulties in finding an adequate definition for computer programs and that it may be premature to enact legislation at the present time. For this reason, we would recommend that a section excluding computer programs from patentable subject matter not be included in any patent reform legislation. However, we would also recommend that the legislative history reflect that this omission was not intended to pass judgment on the question of the patentability of computer programs.

PLANT PATENTS

The recommendation of the Commission to delete all provisions in the patent statute for plant patents followed from its view that the patent system is not the proper vehicle for the protection of such subject matter, irrespective of whether the plants are sexually or asexually reproduced. The Commission urged further study to determine the most appropriate means of protection.

On the other hand, there have been suggestions from the private sector that plant patent protection be enlarged to include sexually, as well as asexually, reproduced plants and that the limitation that the plant be "other than a tuber propagated plant" be removed.

Following up the recommendation of the Commission, we have studied the operation of the plant patent provisions of existing law. It would appear that these provisions of the statute have functioned well in the opinion of those who use them. Also, it appears that the suggestions of the private sector to enlarge the plant patent protection have considerable support. We have requested the views of the private sector on this recommendation as well as any related matters which may be useful in evaluating the Commission's recommendation. We intend to extend the time for this request to April 1, 1968, and we have recently done so.

Senator McCLELLAN. I assume you would want to submit further comment on this question.

Mr. BRENNER. We are in the process of a study at the present time and we do not have a position one way or the other on the plant patent situation at this particular moment, Senator.

Senator McCLELLAN. I don't know that we will be, but we should be able to report out this bill sometime during this session of Congress. Would you think if you had made a determination and had come to some judgment on it before that time you would want to submit it for the committee's consideration?

Mr. BRENNER. Yes, sir; we would submit any information or position we may have on this as soon as possible, for the reasons that you men-

tioned. We had originally set a deadline of February 1 on getting these views with the express purpose of trying to get them in promptly.

Senator McCLELLAN. I see you have extended that to April 1.

Mr. BRENNER. Yes, sir; that is the present limit, but we have already received a considerable number of views from the private sector as they felt or understood that February 1 was the deadline.

Senator McCLELLAN. When you come to some decision about the matter, I suggest you advise the committee by letter, and that letter may be incorporated in the record.

Mr. BRENNER. Yes, sir; we will certainly do that.

Senator McCLELLAN. Unless you felt it was advisable for you to appear before the committee and make your presentation personally. If you do make such request, let us know.

Mr. BRENNER. Yes, sir; we certainly will.

(The letter referred to was placed in the appendix.)

STANDBY OPTIONAL DEFERRED EXAMINATION

Mr. BRENNER. As you know, the Commission recommended that the Secretary of Commerce be given standby authority to institute a system of deferred examination. The patent reform bill in sections 191 to 194 would provide this authority. There are no provisions in S. 2597 for a deferred examination system.

In view of the present work schedules and our plans for international cooperation, the deferred examination system would not be necessary either at the present time nor any time in the foreseeable future. Accordingly, we do not view this matter as having major significance at this time.

CIVIL COMMISSIONERS

In an effort to help bring about more effective utilization of the discovery procedures of the Federal Rules of Civil Procedure, the Commission recommended that the Office of Civil Commissioner be created in those U.S. district courts where justified by the volume of patent litigation. While the patent reform bill adopts the Commission's recommendation, S. 2597 does not provide for civil commissioners.

The problems involved in this area are not unique to patent cases, and the committee may find it preferable to consider this issue separately in the context of all litigation in the Federal courts.

PATENT RIGHT TRANSFERABILITY

S. 2597 adopts in section 263 the Commission's recommendation which would approve field-of-use restrictions in license provisions and clarify the rights of patent owners by making clear that the rule of reason should constitute the guideline for determining patent misuse. This provision is not clear and might well be construed to legitimate the use of any field-of-use restrictions. For these reasons, we would strongly oppose the enactment of section 263 of S. 2597.

UNAUTHORIZED PRACTICE

As you know, the Commissioner of Patents is authorized under section 31 of title 35 of the existing law to prescribe regulations governing the recognition and conduct of persons representing applicants before the Patent Office, and under section 32 to exclude from further practice before the Patent Office any person shown to be incompetent, disreputable, or guilty of gross misconduct. Section 33 of existing law provides criminal sanctions for the unauthorized representation as a patent practitioner:

Whoever, not being recognized to practice before the Patent Office, holds himself out or permits himself to be held out as so recognized, or as being qualified to prepare or prosecute applications for patent, shall be fined not more than \$1,000 for each offense.

In the case of *Ann Hull*, also known as *Ann Hastings v. United States*, decided last week, the Court of Appeals for the District of Columbia concluded that a fair reading of this section was "whenever anyone who is not registered with the Patent Office says he is, or, without saying so directly, employs methods which give the impression that he is, he may be criminally punished." This court interpretation of the statute would not prohibit a person who is not recognized before the Patent Office as a practitioner from engaging in the business of preparing and prosecuting patent applications and thus, in our view, creates a serious problem with regard to providing adequate protection for applicants. We are studying this situation and will transmit our recommendations in this matter to the subcommittee shortly.

S. 2164

S. 2164 introduced by Senator Yarborough for himself and Senator Tower on July 25, 1967, is an amendment of existing title 35 to "eliminate delay in the issuance of a patent application" caused by continuing applications, interferences, and appeals.

S. 2164 adopts only recommendation No. V of the President's Commission. This is the recommendation which would permit assignee filing and liberalize the joinder of inventions and applicants (secs. 123 and 124). Section 124, which permits filing by an assignee, does not, in our view, provide sufficient safeguards for the rights of an inventor inasmuch as an assignee can file an application for patent merely by making an oath on information and belief and making a prima facie showing of ownership of the subject matter of the application. Thus the inventor could be completely bypassed in the process for obtaining a patent.

Sections 155 and 156 would provide for the issuance of patents on applications pending appeal and interference, respectively. With regard to interferences, the applications of all parties to an interference would be issued.

Under section 157, the claims of an issued patent on appeal or an issued patent in an interference proceeding would be considered rejected or conditional, respectively, until activated into effectiveness by a termination of the proceeding favorable to the patentee. In addition, this section also provides that the term of "any rejected or conditional claim" later activated would begin on the date of activa-

tion and expire 10 years from the date of activation or on the same date as would an ordinary claim, whichever is the later.

Under section 158, the owner of an application may file a dedication to the public and a patent will issue with a notation that the claims have been so dedicated. The owners of dedicated applications and patents shall have the same rights of interference as other persons but any claims won become dedicated also.

Section 159 would provide that conditional claims in the patent issued to the senior party in an interference proceeding would be conditional claims only to the extent of being subject to cancellation pursuant to section 135.

S. 2164 falls far short of the Commission's plans and of the improvements which would be achieved by the enactment of S. 1042, modified, as I have indicated. I would suggest that the committee would want to study the provisions of S. 2164 very carefully before adopting its provisions which would remove the United States even further from the other patent systems of the world.

As I mentioned at the outset, except as our testimony in the earlier hearings has been amended by the views we have expressed today, we support the provisions of the patent reform bill as the best plan for achieving the objectives of the President's Commission. I would be pleased to answer any questions you may have and to return at any time as the issues develop before this subcommittee.

Senator McCLELLAN. Thank you, Mr. Commissioner. You have made a very comprehensive presentation. It will require study by members of the committee. I have no questions today. I would suggest, and I assume you will have someone present at these hearings as they progress. I hope we are laying the groundwork here for some good legislation. I know this is not legislation we can process hastily. It is too complex. We are going to have to move with some caution and with considerable deliberation. But it may very well be in the course of the hearing we would like to recall you for comments on issues that may be raised.

If you will have someone here which you always do anyway to watch the proceedings and to feel free to make suggestions to counsel or to members of the committee about anything that may need careful consideration, if you will do this I personally would appreciate it.

Commissioner BRENNER. Yes, sir.

Senator McCLELLAN. You have always cooperated with us and we appreciate that, and of course want to give very great weight to your views at any time, but we also want to hear others, and I am sure they can make a contribution, as they have already. They have made contributions by the suggestions they have made in testimony they have given, and in their letters.

I think we are moving toward a good piece of legislation, well processed, and which will serve all interests in this field. Thank you very much.

Senator Fong, any questions?

Senator FONG. No, Mr. Chairman. I am very sorry that I was not here to listen to the first part of the testimony of the Commissioner. I will read your statement, Mr. Commissioner. I have no questions. Thank you for coming.

Senator McCLELLAN. Thank you, gentlemen, very much.

Commissioner BRENNER Thank you.

Senator McCLELLAN. I notice that our colleague Senator Nelson is present. Senator, will you come around, please?

STATEMENT OF HON. GAYLORD NELSON, A U.S. SENATOR FROM THE STATE OF WISCONSIN

Senator NELSON. Mr. Chairman, members of the committee, I appreciate the chance to appear before you this morning. I am appearing in behalf of bill, S. 1377, which I introduced in March of 1967. It is a very simple bill designed to authorize the Commissioner of Patents to establish patent search centers in various parts of the United States. I know the chairman has a long list of witnesses today. I would ask that my statement be printed in full, and I will read some excerpts in an attempt to move expeditiously through this testimony, if that is satisfactory with the chairman.

Senator McCLELLAN. Thank you very much. It is entirely satisfactory. We do not want to deny you full presentation of your testimony. If you feel that that will be an adequate way to handle it, we will be glad to accept your suggestion. Let the Senator's prepared statement be printed in full following his oral presentation.

Senator, you may highlight it if you desire.

Senator NELSON. Mr. Chairman, I will read some excerpts from it. The proposition is a very simple one.

Technological progress plays the major role in stimulating economic progress.

New products and new processes are the key to a single company's growth, an entire industry's growth, and a nation's growth.

The expansion of our economic system depends on the genius of research and innovation.

Many new products, the results of research, have helped push the economy to new heights every year: 1948 marked the beginning of a new era of inventiveness.

Since that time, antibiotics and the discovery of many new kinds of wonder drugs have given new leases on life and good health to our people.

Vitamins, polyethylene, styrene plastics and resins, transistors, power steering, power brakes, synthetic fibers, air conditioning, tape recorders, and many other startling developments have given birth to wholly new, giant industrial complexes.

The United States continues to lead the world in scientific genius and inventiveness, but the race gets hotter and the pace gets faster every day.

Every means must be sought through efficiency and new technology to produce new products to brace our economic backbone to keep our armamentarium replete with the latest devices, to cut production costs, and to increase our per capita industrial production.

The scientific arts must be stimulated by every means possible—by huge research programs—and as importantly, by the quick dissemination and transference of knowledge.

To help make this necessary knowledge readily available to as many people as possible, I introduced a bill, S. 1377, to authorize the

U.S. Patent Office to establish patent search centers in several economically strategic locations throughout the country.

By this means, descriptions of inventions would be more readily accessible to inventors, businessman, both large and small, and the general public.

Business and industry would be more easily informed on the newest and the oldest techniques and innovations. Inventors and innovators would be provided with knowledge of advances in their particular areas of interest.

The idea of establishing patent search centers throughout a country is not a new one. West Germany has some 40 centers—a country which is one-third the size of Texas. Great Britain has 20 such centers. The Soviet Union is establishing over 100 patent centers.

Heinrich von Wimmersperg, a noted development engineer from Detroit, Mich., stated in a March 1960 article in the *Journal of the Patent Office Society*:

Part of the productive thinking, about 20 times larger than represented by market products, is frozen in the patents issued on the invention. Many conditions besides the technical merit determine the industrial success of an invention. Some of the most important inventions came too early, at a time when some of the technical links were missing. Some did not find a promoter with vision enough to stick through the difficult process of converting ideas into products. Others were just as good as parallel solutions in public use, but did not find the way to production. All this invisible creative thinking is preserved in the patents. Furthermore, they give the most complete information on products which did reach production. Thus, the patents cover actually almost the total of the important creative technical thinking of a nation.

Wimmersperg says that the engineer also relies on two other sources: the various textbooks and industrial products on the market.

Textbooks usually all show more or less the same content, "only a few typical solutions of a problem," and therefore, have very limited application.

Only an extremely small amount of the "total creative thinking" of a nation, on the other hand, reaches public knowledge through industrial production.

Thus the development engineer must rely on the prior art available in the subclasses of patents available in the patent office.

Dr. A. A. Kueher, vice president in charge of engineering and research for the Ford Motor Co., had this to say about the subject in a speech before the American Patent Law Association in 1958:

There is no better way to catch up with the procession than to know the patent art. At the same time, the study of an art through patents provided the best incubator for the conception of new and improved ways and means.

The Patent Office at present spends considerable time and money in classifying and subclassifying patents according to subject matter. More than 3 million patents are divided into about 50,000 subclasses.

The results of this massive effort are available in only one place in the United States—the Public Search Room in Washington, D.C. As a result, it is useful primarily to the patent attorney located in Washington.

Patent information can be made more useful.

Only a relatively few researchers in this country can tap the information stored in the Washington, D.C., Patent Office on a sustained basis. Some cannot use it at all because of the distance and cost barriers.

If patent search centers could be located in several places throughout the country, to begin with, businessmen, engineers, scientists, and inventors would more easily determine what has been done in the past, thus avoiding duplication of efforts.

Chemists and engineers who know how to use the official search files of the Patent Office, and who take advantage of this knowledge, find it to be an exceptional, valuable source of information and stimulation.

Some patent attorneys estimate that 98 percent of the putterers and basement inventors have never had a single look at the limitless knowledge in the volumes of patents on file.

These tens of thousands of Americans with untapped creativity, who invent as a pastime and who contribute immensely could make a much greater contribution to society if this information were available in convenient search centers throughout the country.

A few moments could encourage and nurture a germ of an idea which might yield a major instrument in the Nation's kit of tools, and in furthering America's industrial might and superiority.

There are on file in the libraries patents that are filed numberwise but not by subclasses.

It is an anachronism that the opportunity for convenient review of the literature in an organized fashion is available only in one place in the entire country.

It is true that patents are filed numberwise, not by subclasses, and are kept in some 22 libraries in the country. They are of some value as a reference for looking up a particular patent—if you know what the patent is you want to inspect—but they are practically valueless for the engineer who wants to discover by a quick means all the complete information on the technical elements and element groups in the area he is pursuing.

In order to discover the prior art, he needs the patents filed according to subclasses—filed according to elementary groups. He can, as a matter of fact, obtain the patent numbers of the various classes from the Patent Office in some 3 or 4 weeks. But he then has to search some several hundreds of volumes to find the actual patents he wants to inspect. This process may take weeks, and even months. This is a most discouraging prospect for the sophisticated inventor, let alone the rank amateur.

The interesting aspect of this entire process is that of rediscovering older innovations, still on file, which are dug out again, reapplied, and found to be the catalyst which makes the entire new idea a worthy one. This was the case of the power-driven machinegun when the self-powered type reached the end of its development possibilities.

From the standpoint of national security alone, other locations would have complete and duplicate working files for safekeeping purposes. During World War II, the Germans realized their danger and kept complete lists of everything in the search files in underground bunkers. After the war these lists were used in reconstituting the German Patent Office, and they have been useful to engineers and scientists, historians and technology and searchers.

Commissioner of Patents, Edward J. Brenner, in testimony before your committee on May 17, 1967, on patent law revisions stated:

S. 1377, introduced by Senator Nelson on March 23, would clarify the existing authority of the Commissioner by specifically authorizing the establishment of

patent search centers in economically strategic locations throughout the country. At the present time, the only place where patents are arranged by subject matter for convenient search or study is in the public searchroom in the Patent Office at Washington. The Patent Office has for several years been interested in the establishment of field search centers to enable interested members of the public to make patent searches in various parts of the country. Also, establishment of such centers would provide national security of this invaluable technical information against fire or other disaster.

The Patent Office has an ongoing program of placing the patent search files on microfilm. When this is completed, the cost of copies, as well as space requirements, will be greatly reduced. Senator Nelson's proposal, therefore, is very timely and has considerable merit.

I have received many endorsements for the bill. The chairman of patent, trademark and copyright section of the State bar of Wisconsin wrote me:

I have canvassed a number of patent attorneys as well as some of the inventors with whom I have worked and there seems to be general agreement that the establishment of an additional patent search center in Chicago would be most beneficial. As you well know, information retrieval is a major problem in relation to patenting as well as other industrial and commercial activities.

The president of the Milwaukee Patent Law Association told me by letter that:

A large majority of the Association's members favor the principle of establishing patent and technical information search centers throughout the country. We perceive that such centers would afford a convenient and necessary opportunity for inventors and researchers, acting independently and as employees of companies, to make state-of-the-art searches in contemplation of beginning new research and development programs.

The American Chemical Society endorses the measure, saying:

It is our opinion that much benefit can derive from improvements in methods for disseminating and searching patent literature. Large and small companies as well as individual inventors, and indirectly the general public, can gain. We wish you well in your efforts.

Industry is interested in the bill. The Kimberly-Clark Corp. a large manufacturer of paper products, said:

The establishment of such centers is believed to be a very desirable thing. The classified patent research files, as I am sure you know, constitute one of the leading sources in the world of technical information and the fact that this information is available in only one place, i.e. Washington, is most unfortunate, both from the viewpoint of industry and from the viewpoint of national safety.

This S. C. Johnson Co., a major manufacturer of waxes and other products, told me:

The only patent search center used by our personnel outside of the search room in the Patent Office is the John Crerer Library in Chicago. Unfortunately, it does not have the subject matter, indexing and other classifications of the United States and foreign patents provided by the Patent Office.

Several distinguished patent attorneys, patent firms, and inventors have written to me.

The Andrus & Starke patent law firm of Milwaukee, Wis., stated:

I have received your letter of April 17th relating to your recent introduction of Senate bill 1377 relating to the creation of regional patent search centers throughout the country. I am highly in favor of such centers, since they will make the valuable patent literature more readily available to inventors, engineers and etc.

Mr. George E. Szekely, a patent law specialist from Fort Atkinson, Wis., said:

I am indeed most interested to learn that you have introduced a bill calling for patent search centers. For years I have been an ardent advocate of such expansion of search facilities. Please accept my enthusiastic commendation of your bill in principle.

Mr. John Diehl, an inventor and attorney from Madison, Wis., wrote:

I commend you for doing so. I think this might be one of the most helpful things which could be done for small inventors and am particularly impressed because it may be possible to accomplish a great deal in providing much help at relatively low cost.

The classified U.S. patents in the public search room of the Patent Office constitute the most detailed library of applied technology found anywhere in the world. They provide a historical record of innovations adopted and proposed in every branch of technology. The detail published there is not found in any other manner.

They are immeasurably valuable to the engineer or scientist who needs to begin work in his field or who should keep up on the latest developments.

This may be done in random reading or in systematically poring over all pertinent material. A firsthand review of patents is necessary to inventors and business organizations who may wish to promote or adopt a basic or process patent.

It is important to know the prior art to prevent patent interference and later harassment and disappointment. Of necessity, they must make use of the Patent Office's Center.

The West is involved in an industrial power struggle—not any the less important as the struggle for men's minds.

Long after the world resolves its political differences, the leader of the free peoples will have to be the industrial and economic leader, too. The East realizes this.

They are graduating scientists and engineers in great numbers. The vast, untapped reservoir of talent now being developed in the East is imposing indeed. We must make up in efficiency what we will always lack in mass numbers of raw talent. Even if it is true that we spend billions for research laboratories and billions for production, we cannot overlook the minute details which are necessary to the development engineer, the innovator, and the basement inventor.

Several years ago when the idea for more search centers was first proposed, it was suggested that it be done on the basis of making actual copies of patents and filing them in separate locations elsewhere in the United States. There are more than 3 million U.S. patents on file right now. The classified system includes a large number of cross references so that a total of approximately 7 million copies would actually be involved.

The present price set by statute of 50 cents per copy, would have involved an expenditure of \$3½ million for the duplicates alone. Necessary filing cases and storage space would have added substantially of the cost. Thus from 1959 until now, little has been done about establishing centers.

However, with the advent of microfilming, both the cost of copies and the space of filing requirements have been greatly reduced. Now a full set of cards for the classified system of patents, including cross references, would cost only about \$400,000 for a patent center—a vast difference. Necessary views and filing cabinets might bring the cost

up to as much as \$450,000. This is about one-ninth the cost of actual patent copies. The cost is small compared with the benefit derived.

The Patent Office informs me that a very adequate center would require between 4,000 and 5,000 square feet—a room about 40 feet by 50 feet by 100 feet.

This could be set up in public libraries of several major cities, or in the Federal building, or it could be rented from private contractors.

I would recommend as a trial the setting up only two or three centers during the first 5 years. After that time it could be determined where others, if necessary, should be located.

Search centers containing all of our patent literature in fully classified form would be of particular benefit to the sometimes forgotten small businessman. Information secured in such patent search centers could accelerate new inventions and discoveries, and stimulate new research ideas and investments, thus contributing to the economic development of many areas of the country, and to the eventual betterment of all our people.

That concludes my testimony, Mr. Chairman, and I appreciate very much your giving me the opportunity to appear. I hope I have not imposed too much.

SENATOR McCLELLAN. Does it take legislation to authorize these centers?

SENATOR NELSON. My check through my staff and with the Commissioner is that it does require some authorization for him to establish this kind of a center.

Senator McCLELLAN. Does the bill provide for it as a pilot experiment?

SENATOR NELSON. We did not put that in the bill. We simply said the Commissioner may establish public facilities for searching of patents and establish a public information service for the dissemination of the public information concerning patents.

Senator McCLELLAN. It is not compulsory. It just authorizes him?

Senator NELSON. It authorizes him to do so.

Senator McCLELLAN. It would be your suggestion that he try a pilot project or two?

Senator NELSON. Correct.

Senator McCLELLAN. To begin with?

Senator NELSON. I would think that somewhere out in the West and somewhere in the Midwest, would be at least two good places to start. Then we would gain some experience. The investment is not very large. We would have available in subclasses all the patents on file here in Washington. I am satisfied that the experience of West Germany, a relatively small country, with 40 patent centers, and England with 20 patent centers, and Russia, establishing 100 patent centers, has pointed up the importance of getting information readily available.

Senator McCLELLAN. That would indicate that they have found of course this to be of some real value?

Senator NELSON. Yes.

Senator McCLELLAN. I was thinking, as you made your presentation about the cost, and whether the benefits would exceed the cost of establishing, maintaining, and operating such centers. I do not know what it would be. It would depend on the number of centers. But that is a factor that we have to weigh I think in enacting legislation of this

kind. From what you have said about it, I gather that the cost would not be a great amount. I think it would not justify the construction of new buildings in these centers, not initially at least.

We do not know whether they should have space in Federal buildings that could be assigned and used or whether public libraries would have space that could be made available. What do you think it would require to operate one of these centers in the way of personnel?

Senator NELSON. Well, I am not sure about that. My staff did all the work on the bill and consulted with the Patent Office. My staff simply said that the Patent Office thought two, three, or four people, but I do not stand behind that. I think if the committee considered it, you would probably want to check that a little more carefully. Our advice was that it would only cost about \$400,000, however, to microfilm all the patents, and somewhere around \$450,000 or thereabouts to provide the viewers, and a room 4,000 to 5,000 square feet. As you mentioned the room may be available in a Federal building, or could be rented at reasonable cost privately. So the cost does not look to me like a very large one, when you consider the fact that private citizens and taxpayers just pay a tremendous amount of money every single year either to come here themselves or to hire lawyers here. Those with some inventive genius of their own, and engineers and companies are spending all this money to come here when if there were one in Chicago, one on the west coast and one in the South, you could save the taxpayers a lot of money. The country would benefit manifold by the creativity of people who will never be able to use the Patent Office here in Washington because it is not quite worthwhile to come, or they cannot afford it; whereas if it is only a matter of an hour's trip, or a short drive, all kinds of people who have valuable contributions to make to the country will find the accessibility valuable.

I think it will also be of great value to small businesses, and small inventors who find the expense of coming here prohibitive.

Senator McCLELLAN. Thank you very much, Mr. Senator. I note these endorsements. They seem to be strong endorsements of this proposal. I am sure the committee will be very interested in considering it.

Senator FONG?

Senator FONG. Senator Nelson, I presume I am just one of many Senators who have never visited the Patent Office. What do you contemplate having in these centers?

Senator NELSON. As I understand it, the whole patent would be microfilmed and then they would be classified as they are here, by 50,000 subclasses. So if you went there as an inventor and wanted to check a particular device, all of them would be in one subclass. You could go through the files and there might be hundreds of them. You would get all the information in one place. You would take the copies to the microfilm viewer, run them through, and they would show up on the screen.

Senator FONG. So actually it consists of files, it consists of pictures.

Senator NELSON. That is correct.

Senator FONG. And it consists of microfilm?

Senator NELSON. Yes, it would be the microfilm in the files and the viewing screens and whatever personnel were required to supervise a room of 50 by 100 feet in length, which would not amount to very

much. You would have to have a librarian of course who understood the files.

Senator FONG. Thank you.

Senator McCLELLAN. Any questions by counsel?

Thank you very much, Senator.

Senator NELSON. Thank you very much, Mr. Chairman.

(The prepared statement of Senator Nelson appears as follows:)

STATEMENT OF SENATOR GAYLORD NELSON, A U.S. SENATOR FROM THE STATE OF WISCONSIN

Technological progress plays the major role in stimulating economic progress.

New products and new processes are the key to a single company's growth, an entire industry's growth, and a nation's growth.

The expansion of our economic system depends on the genius of research and innovation.

Many new products, the results of research, have helped push the economy up to new heights every year. 1948 marked the beginning of a new era of inventiveness.

Since that time, antibiotics and the discovery of many new kinds of wonder drugs have given new leases on life and good health to our people.

Vitamins, polyethylene, styrene plastics and resins, transistors, power steering, power brakes, synthetic fibers, air conditioning, tape recorders, and many other startling developments have given birth to wholly new, giant industrial complexes.

The United States continues to lead the world in scientific genius and inventiveness, but the race gets hotter and the pace gets faster every day.

Every means must be sought through efficiency and new technology to produce new products to brace our economic backbone, to keep our armamentarium replete with the latest devices, to cut production costs, and to increase our per capita industrial production.

The scientific arts must be stimulated by every means possible—by huge research programs—and as importantly, by the quick dissemination and transference of knowledge.

To help make this necessary knowledge readily available to as many people as possible, I introduced a bill, S. 1377, to authorize the U.S. Patent Office to establish patent search centers in several economically strategic locations throughout the country.

By this means, descriptions of inventions would be more readily accessible to inventors, businessmen, both large and small, and the general public.

Business and industry would be more easily informed on the newest, and the oldest, techniques and innovations. Inventors and innovators would be provided with knowledge of advances in their particular areas of interest.

The idea of establishing patent search centers throughout a country is not a new one. West Germany has some forty centers—a country which is $\frac{1}{4}$ the size of Texas. Great Britain has 20 such centers. The Soviet Union is establishing over 100 patent centers.

Heinrich von Wimmersperg, a noted development engineer from Detroit, Michigan, stated in a March 1960 article in the Journal of the Patent Office Society:

"Part of the productive thinking, about twenty times larger than represented by market products, is frozen in the patents issued on invention. Many conditions besides the technical merit determine the industrial success of an invention. Some of the most important inventions came too early, at a time when some of the technical links were missing. Some did not find a promoter with vision enough to stick through the difficult process of converting ideas into products, others were just as good as parallel solutions in public use, but did not find the way to production. All this invisible creative thinking is preserved in the patents. Furthermore, they give the most complete information on products which did reach production. Thus the patents cover actually almost the total of the important creative technical thinking of a nation."

Wimmersperg says that the engineer also relies on two other sources: the various textbooks and industrial products on the market.

Textbooks usually all show more or less the same content, "only a few typical solutions of a problem," and therefore, have very limited application.

Only an extremely small amount of the "total creative thinking" of a nation, on the other hand, reaches public knowledge through industrial production.

Thus the development engineer must rely on the prior art available in the subclasses of patents available in the patent office.

Dr. A. A. Kucher, Vice-President in Charge of Engineering and Research for the Ford Motor Company, had this to say about the subject in a speech before the American Patent Law Association in 1958:

"There is no better way to catch up with the procession than to know the patent art. At the same time, the study of an art through patents provided the best incubator for the conception of new and improved ways and means."

The Patent Office at present spends considerable time and money in classifying and sub-classifying patents according to subject matter. More than three million patents are divided into about 50,000 subclasses.

The results of this massive effort are available in only one place in the United States—the Public Research Room in Washington, D.C. As a result, it is useful primarily to the patent attorney located in Washington.

Patent information can be made more useful.

Only a relatively few researchers in this country can tap the information stored in the Washington, D.C. Patent Office on a sustained basis. Some cannot use it at all because of the distance and cost barriers.

If patent search centers could be located in several more places throughout the country, to begin with, businessmen, engineers, scientists, and inventors could more easily determine what has been done in the past, thus avoiding duplication of efforts.

Chemists and engineers who know how to use the official search files of the Patent Office, and who take advantage of this knowledge, find it to be an exceptional, valuable source of information and stimulation.

Some patent attorneys estimate that 98 percent of the putterers and basement inventors have never had a single look at the limitless knowledge in the volumes of patents on file.

These tens of thousands who invent as a pastime and who contribute immensely could benefit greatly through nearby search centers.

A few moments could encourage and nurture a germ of an idea which might yield a major instrument in the nation's kit of tools, and in furthering America's industrial might and superiority.

It is an anachronism that the opportunity for convenient review of the literature in an organized fashion is available only in one place in the entire country.

It is true that patents are filed *numberwise, not by subclasses*, and are kept in some 22 libraries in the country. They are of some value as a reference for looking up a particular patent—if you know what the patent is you want to inspect—but they are practically valueless for the engineer who wants to discover by a quick means all the complete information on the technical elements and element groups in the area he is pursuing.

In order to discover the prior art, he needs the patents filed according to subclasses—filed according to elementary groups. He can, as a matter of fact, obtain the patent numbers of the various classes from the Patent Office in some three or four weeks. But he then has to search some several hundreds of volumes to find the actual patents he wants to inspect. This process may take weeks, and even months. This is a most discouraging prospect for the sophisticated inventor, let alone the rank amateur.

The interesting aspect of this entire process is that of rediscovering older innovations, still on file, which are dug out again, reapplied, and found to be the catalyst which makes the entire new idea a worthy one. This was the case of the power driven machine gun when the self-powered type reached the end of its development possibilities.

From the standpoint of national security alone, other locations would have complete and duplicate working files for safekeeping purposes. During World War II, the Germans realized their danger and kept complete lists of everything in the search files in underground bunkers. After the war these lists were used in reconstituting the German Patent Office, and they have been useful to engineers and scientists, historians of technology and searchers.

Commissioner of Patents, Edward J. Brenner, in testimony before your committee on May 17, 1967, on patent law revisions stated:

"S. 1377, introduced by Senator Nelson on March 23, would clarify the existing authority of the Commissioner by specifically authorizing the establishment of patent search centers in economically strategic locations throughout the country.

At the present time, the only place where patents are arranged by subject matter for convenient search or study is in the public searchroom in the Patent Office in Washington. The Patent Office has for several years been interested in the establishment of field search centers to enable interested members of the public to make patent searches in various parts of the country. Also, establishment of such centers would provide national security of this invaluable technical information against fire or other disaster.

"The Patent Office has an outgoing program of placing the patent search files on microfilm. When this is completed, the cost of copies, as well as space requirements, will be greatly reduced. Senator Nelson's proposal, therefore, is very timely and has considerable merit."

I have received many endorsements for the bill. The Chairman of Patent, Trademark and Copyright Section of the State Bar of Wisconsin wrote me:

"I have canvassed a number of patent attorneys as well as some of the inventors with whom I have worked and there seems to be general agreement that the establishment of an additional patent search center in Chicago would be most beneficial. As you well know, information retrieval is a major problem in relation to patenting as well as other industrial and commercial activities * * *."

The President of the Milwaukee Patent Law Association told me by letter that:

"A large majority of the Association's members favor the principle of establishing patent and technical information search centers throughout the country. We perceive that such centers would afford a convenient and necessary opportunity for inventors and researchers, acting independently and as employees of companies, to make state-of-the-art searches in contemplation of beginning new research and development programs."

The American Chemical Society endorses the measure, saying:

"It is our opinion that much benefit can derive from improvements in methods for disseminating and searching patent literature. Large and small companies as well as individual inventors, and indirectly the general public, can gain. We wish you well in your efforts."

Industry is interested in the bill. The Kimberly-Clark Corporation, a large manufacturer of paper products, said:

"The establishment of such centers is believed to be a very desirable thing. The classified patent search files, as I am sure you know, constitute one of the leading sources in the world of technical information and the fact that this information is available in only one place, i.e. Washington, is most unfortunate, both from the viewpoint of industry and from the viewpoint of national safety."

The S. C. Johnson Company, a major manufacturer of waxes and other products, told me:

"The only patent search center used by our personnel outside of the search room in the Patent Office is the John Crerar Library in Chicago. Unfortunately, it does not have the subject matter, indexing and other classifications of the U.S. and, foreign patents provided by the Patent Office."

Several distinguished patent attorneys, patent firms, and inventors have written to me.

The Andrus and Starke patent law firm of Milwaukee, Wisconsin stated:

"I have received your letter of April 17th relating to your recent introduction of Senate Bill 1377 relating to the creation of regional patent search centers throughout the country. I am highly in favor of such centers, since they will make the valuable patent literature more readily available to inventors, engineers and etc."

Mr. George E. Szekely, a patent law specialist from Fort Atkinson, Wisconsin, said:

"I am indeed most interested to learn that you have introduced a bill calling for patent search centers. For years I have been an ardent advocate of such expansion of search facilities. Please accept my enthusiastic commendation of your bill in principle."

Mr. John Diehl, an inventor and attorney from Madison, Wisconsin, wrote:

"I commend you for doing so. I think this might be one of the most helpful things which could be done for small inventors and am particularly impressed because it may be possible to accomplish a great deal in providing much help at relatively low cost."

The classified U.S. patents in the public search room of the Patent Office constitute the most detailed library of applied technology found anywhere in

the world. They provide an historical record of innovations adopted and proposed in every branch of technology. The detail published there is not found in any other manner.

They are immeasurably valuable to the engineer or scientist who needs to begin work in his field or who should keep up on the latest developments.

This may be done in random reading or in systematically poring over all pertinent material. A firsthand review of patents is necessary to inventors and business organizations who may wish to promote or adopt a basic or process patent.

It is important to know the prior art to prevent patent interference and later harassment and disappointment. Of necessity, they must make use of the Patent Office's Center.

The West is involved in an industrial power struggle—not any the less important as the struggle for men's minds.

Long after the world resolves its political differences, the leader of the free peoples will have to be the industrial and economic leader, too. The East realizes this.

They are graduating scientists and engineers in great numbers. The vast, untapped reservoir of talent now being developed in the East is imposing indeed. We must make up in efficiency what we will always lack in mass numbers of raw talent. Even if it is true that we spend billions for research laboratories and billions for production, we cannot overlook the minute details which are necessary to the development engineer, the innovator, and the basement inventor.

Several years ago when the idea for more search centers was first proposed, it was suggested that it be done on the basis of making actual copies of patents and filing them in separate locations elsewhere in the United States. There are more than 3,000,000 United States Patents on file right now. The classified system includes a large number of cross references so that a total of approximately seven million copies would actually be involved.

The present price set by statute of fifty cents per copy, would have involved an expenditure of \$3½ million for the duplicates alone. Necessary filing cases and storage space would have added substantially to the cost. Thus from 1959 until now, little has been done about establishing centers.

However, with the advent of microfilming, both the cost of copies and the space and filing requirements have been greatly reduced. Now a full set of cards for the classified system of patents, including cross references, would cost only about \$400,000—a vast difference. Necessary viewers and filing cabinets might bring the cost up to as much as \$450,000. This is about one-tenth the cost of actual patent copies. The cost is small compared with the benefit derived.

The Patent Office informs me that a very adequate center would require between 4,000 and 5,000 square feet—a room about 40 feet or 50 feet by 100 feet.

This could be set up in public libraries of several major cities, or in the Federal Building, or it could be rented from private contractors.

I would recommend setting up only two or three centers during the first five years. After that time it could be determined where others, if necessary, should be located.

Search centers containing all of our patent literature in fully classified form would be of particular benefit to the sometimes forgotten small businessman. Information secured in such patent search centers could accelerate new inventions and discoveries, and stimulate new research ideas and investments, thus contributing to the economic development of many areas of the country, and to the eventual betterment of all our people.

(By order of the chairman letters received by Senator Nelson relating to S. 1377 follow:)

STATE BAR OF WISCONSIN,
May 10, 1967.

HON. GAYLORD NELSON,
U.S. Senate,
Washington, D.C.

MY DEAR SENATOR: Thank you for your letter of April 17 regarding bill S. 1377 which you recently introduced into the Senate.

I have canvassed a number of patent attorneys as well as some of the inventors with whom I have worked and there seems to be general agreement that the establishment of an additional patent search center in Chicago would be most beneficial. As you well know, information retrieval is a major problem

in relation to patenting as well as other industrial and commercial activities and, therefore, any action which would tend to alleviate that problem should be welcome. I realize that your bill is an enabling measure which requires implementation through some well-considered and generally acceptable means. It has been my experience that microfilm is not always a well accepted medium as a searching tool and therefore, the design of the microfilm system and the ease which it can be used will be major considerations in its ultimate utilization for searching purposes. It would, for example, be most helpful to use the type of microfilm system which could make copies of the material being viewed immediately available to the viewer.

We will be sure to direct the attention of the members of the Patent Section of our Bar to your bill and you may hear directly from some of the members.

Very truly yours,

HOWARD W. BREMER, *Chairman.*

AMERICAN CHEMICAL SOCIETY,
Los Angeles, Calif., November 16, 1967.

Senator GAYLORD A. NELSON,
Senate Office Building, Washington, D.C.

DEAR SENATOR NELSON: Thank you for the copy of S. 1377 and your letter of June 12 replying to my inquiry of May 25. I would be interested to know the present status of this bill.

I also want to bring the Los Angeles Public Library to your attention. It is one of about twenty in this country that maintain a complete file of U.S. Patent Specifications. While the patent material coverage is good the physical facilities are limited, which does detract from the usefulness of the Patents Room. It seems to be a good time to mention this because there are plans for a new library. Hopefully your program could be of some encouragement and assistance.

It is our opinion that much benefit can derive from improvements in methods for disseminating and searching patent literature. Large and small companies as well as individual inventors, and indirectly the general public, can gain. We wish you well in your efforts.

Sincerely yours,

T. F. BANIGAN, Ph. D.,
Chairman, Professional Relations Committee.

KIMBERLY-CLARK CORP.,
Neenah, Wis., May 2, 1967.

Hon. GAYLORD NELSON,
Senate Office Building, Washington, D.C.

DEAR SENATOR NELSON: This will acknowledge and thank you for your letter, dated April 17, 1967, concerning Senate Bill S. 1377, which was recently introduced by you and which is concerned with the establishment of additional patent search centers throughout the country.

The establishment of such centers is believed to be a very desirable thing. The classified patent search files, as I am sure you know, constitute one of the leading sources in the world of technical information and the fact that this information is available in only one place, i.e. Washington, is most unfortunate, both from the viewpoint of industry and from the viewpoint of national safety.

If there is anything I can do to assist in connection with this most meritorious legislation, I shall be very happy to do so.

Yours very truly,

PAUL J. GLAISTER.

S. C. JOHNSON & SON, INC.,
Racine, Wis., May 25, 1967.

Senator GAYLORD NELSON,
U.S. Senate, Washington, D.C.

DEAR SENATOR NELSON: Responsive to your letter of April 17, 1967, the patent attorneys at S. C. Johnson favor proposed bill S. 1377. We and certain research personnel would use such a center extensively.

The only patent search center used by our personnel outside of the search room in the Patent Office is the John Crerar Library in Chicago. Unfortunately,

it does not have the subject matter indexing and other classifications of U.S. and foreign patents provided by the Patent Office.

Best wishes.

Sincerely yours,

ROBERT D. WHITE, *Patent Attorney.*

ANDRUS & STARKE,
Milwaukee, Wis., May 1, 1967.

Senator GAYLORD NELSON,
Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR SENATOR NELSON: I have received your letter of April 17th relating to your recent introduction of Senate Bill 1377 relating to the creation of regional patent search centers throughout the country. I am highly in favor of such centers, since they will make the valuable patent literature more readily available to inventors, engineers and etc.

I note from your speech in Congress that you are in favor of search centers using micro-filmed patents. I realize that a micro-film set-up would be extremely less costly than a set-up using actual printed patent copies. Nevertheless, I am opposed to the use of micro-film, because in my opinion it would substantially increase the difficulties and time required for searching. I personally have spent many weeks at a time searching in the Washington Patent Office search room. The first page of a patent consists of drawings. I look at the drawings and if it is apparent that what is shown is not pertinent to what I am looking for, I can skip over the remainder of the patent in an instant and go on to the drawing of the next patent in the files. With a micro-film system, if the drawing does not look pertinent one must nevertheless watch all of the remaining pages of the patent go by on the viewer. This not only presents control problems, but also takes time and can make one dizzy. I have used micro-film viewer machines in the Washington Patent Office search room, and if the micro-film search center were to use similar machines, searching would become almost impossible in my opinion. If machines were available whereby one could shift from the first page of drawings of one patent to the first page of drawing of the next merely by the pushing of a button, the system might be usable. I don't know if such machines are available, but I would recommend that this be checked out before a final determination is made as to how the regional search centers should be set up. I am presently inclined to favor the use of actual printed patent copies in such search centers. Surely the cost to the Government of providing printed patent copies would not approach the 50¢ per patent charge made to the general public for patent copies.

Very truly yours,

FRANK S. ANDRUS.

FORT ATKINSON, WIS., *May 13, 1967.*

Re S. 1377, your letter April 17, 1967.

Hon. GAYLORD NELSON,
Committee on Internal and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR SENATOR NELSON: I am indeed most interested to learn that you have introduced a bill calling for patent search centers. For years I have been an ardent advocate of such expansion of search facilities. Please accept my enthusiastic commendation of your bill in principle. Not having seen the bill I cannot comment on its specific provisions or resolutions.

Failure hitherto to implement patent search facilities has amounted virtually to thwarting, at least in part, the primary purpose of the patent system, that is, to "Promote the Progress of Science and the Useful Arts", U.S. Const., Art. I, Sec. 8. The laudable principle of exchanging exclusive rights for public disclosure has not heretofore been fully pursued. I believe that patent professionals, engineers, scientists, legislators and the general public alike have not been fully appreciative of the rich technological fund deposited in the form of published U.S. Patents. It is high time that we cease to look on patents merely as legal instruments and recognize them collectively as the most complete and authoritative library of scientific and technological information anywhere available in one form from one source.

Establishment of search centers throughout the country will serve not merely those directly interested in prosecuting and maintaining patent protection, albeit their search efforts would be greatly facilitated thereby. I believe the greatest boon to be for the practicing scientists and engineers, who for the first time in history would be afforded full access to the patent library. I speak from a wealth of experience when I say that this library cannot be effectively researched through agents, but should be directly available to those with the technological understanding of the particular subject matter of search and research. Even large corporate research facilities cannot now utilize the patent library with more than a fraction of its potential utility.

I expect to be in Washington from time to time and would appreciate an opportunity to speak more fully on this subject with someone on the research or steering committee. Would you be so kind as to recommend me to the appropriate office, if other than your own?

Sincerely,

GEORGE E. SZEKELY, *Attorney at Law.*

MADISON, Wis., May 8, 1967.

HON. GAYLORD NELSON,
U.S. Senate, Washington, D.C.

DEAR SENATOR NELSON: Thank you for your letter of April 17, 1967, informing me that you have recently introduced S. 1377 in the Senate to establish additional patent search centers throughout the country.

I commend you for doing so. I think this might be one of the most helpful things which could be done for small inventors and am particularly impressed because it may be possible to accomplish a great deal in providing much help at relatively low cost.

I might mention that it appears to me that Patent Legislation recently introduced in both the Senate and the House at the instigation of the White House will be most detrimental to small inventors and small business. It appears to me that for companies which can maintain a full-time patent staff the cost of obtaining a patent will increase only about two-fold but that the cost will increase perhaps ten-fold for small businesses and individuals who cannot maintain a staff of patent attorneys comprising at least one full-time person in Washington and one full-time person at home.

Yours very truly,

JOHN M. DIEHL.

JUNE 28, 1967.

HON. GAYLORD NELSON,
*U.S. Senate,
Washington, D.C.*

MY DEAR SENATOR: This concerns bill S. 1377 relating to establishment of patent search centers throughout the country.

The bill was considered at a meeting of the Milwaukee Patent Law Association, and some of our observations about the matter are set forth herein. The Association membership comprises over 100 registered patent attorneys from Milwaukee and outlying areas of Wisconsin. Some are in private law practice and others are affiliated with industries. Diverse client interests from both the independent and corporate sectors of the technical and scientific community of our state and the nation are fairly well represented.

A large majority of the Association's members favor the principle of establishing patent and technical information search centers throughout the country. We perceive that such centers would afford a convenient and necessary opportunity for inventors and researchers, acting independently and as employees of companies, to make state-of-the-art searches in contemplation of beginning new research and development programs. Such searches, though often neglected due to present inconvenience, would tend to minimize going over old technical ground and provide an education on which a sound development program might proceed.

It was the consensus of the Association that for such centers to fulfill their intended purposes, the search facilities would have to be adequate and comparable to those which are available in the Patent Office. The degree of enthusiasm for search centers exhibited by individual members was conditioned on the expected adequacy of the facilities.

Although several sites were mentioned for a center that would serve the North Central region of the country, no firm recommendation is made. Proximity to the greatest concentration of population and to public transportation facilities should be considered in connection with locating any of the centers, but transportation convenience should probably be most influential in making a choice.

Several of the Association's members were of the opinion that a trial search center should be established in some location in the country and that any problems which may arise in connection with its operation be solved before other centers are established. The results obtained with the first center should be publicized and made available for study to induce constructive suggestions for improvement from the patent profession and the technical community. It seems reasonable that the trial center might be in California which has a concentration of science and industry and is now greatly inconvenienced by remoteness from Washington.

The Association is of the opinion that the expense of search centers should be covered by a specific appropriation and should not be covered in a manner that would result in an increase in Patent Office fees since the public-at-large would benefit as much or more from the centers as would patent applicants.

Yours very truly,

MILWAUKEE PATENT LAW ASSOCIATION
RALPH G. HOHENFELDT,

Chairman, Patent Law and Related Legislation Committee.

Senator McCLELLAN. The next witness is Mr. McKie of the American Bar Association.

Come around and have a seat. Will you identify yourself for the record, please.

STATEMENT OF EDWARD F. McKIE, JR., CHAIRMAN, SECTION OF PATENT, TRADEMARK, AND COPYRIGHT LAW OF THE AMERICAN BAR ASSOCIATION, ACCOMPANIED BY WILLIAM E. SCHUYLER, JR., ESQ.

Mr. McKIE. Thank you very much, Senator.

My name is Edward F. McKie. I testify before you today on behalf of the American Bar Association as the chairman of that association's section of patent, trademark, and copyright law. Accompanying me is William E. Schuyler, Jr., a past chairman of our section, and chairman of the committee of the section which drafted the bill which is now before you as S. 2597, introduced by Senator Dirksen.

Senator McCLELLAN. Let me state I note that you have quite a lengthy statement, some 42 pages with an appendix of four or five pages. Would you submit it for the record, let it be printed in full and highlight it? It may be an accommodation to us in view of the fact that we have several witnesses, and I do hope that in the course of these hearings we won't have to carry witnesses over. We will try to accommodate those that we have scheduled each day, to keep on schedule with our hearings if we can. If you will do that it will be some accommodation to us, and I assure you that it will not escape our attention, the fact that you did not read all of it.

Mr. McKIE. Yes, Senator, that is what I would like to do, to submit the whole thing for the record.

Senator McCLELLAN. Very well, it will be printed in the record in full. You may proceed to highlight it.

Mr. McKIE. Very well, Senator.

Our section testified before this subcommittee last May 18 through Mr. Robert Fulwider who was then chairman of the section. At that time, Mr. Fulwider testified principally in conjunction with three reso-

lutions that had been adopted by the American Bar Association, through its board of governors. One of those resolutions requested this subcommittee to defer submission of its report on S. 1042 until such time as the American Bar Association and other interested parties should have had a reasonable opportunity to fully consider S. 1042 and any other proposed bills. We are very grateful that this subcommittee has seen fit to extend to us the privilege to appear here again after we have had sufficient time to come to a final conclusion as to S. 1042 and have finished our drafting activities, such that the draft of the patent section of ABA could be introduced in the Senate as S. 2597, by Senator Dirksen.

Further improvements were made in that draft by the patent section at its meeting in Honolulu last August. Those amendments have been communicated to the subcommittee and we hope that Senator Dirksen's bill will be amended to incorporate them.

Before discussing the various involved principles, I would like to make reference to Secretary Samuel's referral to the proposed Patent Cooperation Treaty. Both Mr. Schuyler and I were present at Geneva, Switzerland, at a meeting of a committee of experts convened by the International Secretariat of the Paris Union, to consider the first draft of the proposed Patent Cooperation Treaty. That meeting resolved that the first draft should be extensively revised, and as Secretary Samuels stated, that revision is now going on.

The recommendations that were made at that meeting, with a great number of representatives of various countries, should avoid any need for us to make significant changes in our law beyond the ones that we are recommending here in S. 2597.

Turning to the matters of principle which are involved in the various bills before the Senate, I would like first to refer to the first-to-invent and grace period principles.

Mr. Fulwider's statement dealt at considerable length with our objections to certain sections of S. 1042 which would establish the first-to-file principles, exclusively, for the granting of patents, and which would abolish the grace period by which American inventors have been permitted to develop their inventions to the point of practical application before filing.

The retention of the grace period is embodied in the Dirksen bill, at sections 100(1) (3) and 102(c). We have noted Commissioner Brenner's statement that S. 2597 does not provide greater incentive for early filing than exists today. While this is true, one should not lose sight of the fact that the existing system does provide incentive for early filing by giving the senior applicant substantial advantages over the junior.

We also have noted the statement by Assistant Secretary Kincaid, in his January 24 speech to the American Patent Law Association, that any modification of the first-to-file system of S. 1042 should include strong incentives for early filing. Dr. Kincaid mentioned three different proposals for such incentives, all of which involved arbitrary time limits on proofs of prior invention. (There is a misprint in our statement at that point. It should be "prior invention" rather than "prior mention.")

Our association has been studying mechanisms of providing such incentives. In that study we have been concerned with the failure of these

arbitrary time limit proposals to accommodate the great range of different circumstances which may affect different kinds of inventions. As an example, there is an extreme difference in the time required to develop and to file a patent application on a new ice tray and on a new class of rust inhibiting compounds. Any time limit selected to accommodate the ice tray invention would work an extreme hardship on the inventor of the rust inhibitors. On the other hand, any time limit selected to accommodate the rust inhibitor invention would not provide the desired incentive for early filing to the inventor of the ice tray.

It may be possible to adopt a less arbitrary incentive that can accommodate disparate fact situations. This possibility might be based on the rules adopted by the courts in defenses based on prior invention under section 102(g). Those rules include one that a prior inventor may lose his rights by failure to file his patent application within a reasonable period of time, and another that any case of prior invention, whether or not patented, requires proof of steps taken to get the invention into the hands of the public within a reasonable time after completion of the invention.

Statutory expression of these rules, applicable to priority proceedings in the Patent Office, might furnish a less arbitrary incentive than those so far suggested. We will continue and expedite our consideration of all such incentive possibilities.

The sections of the Dirksen bill which would permit issuance of patents to the "first to file," with an optional priority contest by a junior applicant, are section 100(i)(5), section 136(d)(2) and (3), and section 137. The provision for interim liability in the event of publication before issuance is contained in section 271(f) and 284(b). The provision for a right to oppose issuance of an application for unpatentability is contained in section 136, but section 123(a) and section 151(a) would provide for publication for such opposition only in the event of allowance of the application.

The above proposals would make a very substantial change in the present law, but it is believed that the changes would be to the benefit of the patent system without any substantial decrease in the present incentives to inventors not only to invent, but also to develop their inventions to the point of practical application before filing patent applications. Moreover, these provisions should insure that priority contests are declared only when desired by junior applicants and not, as now, whether or not the respective applicants are desirous of resolution of the question of priority by an interference. Indeed, in order that interferences would be declared only when the junior inventor is likely to be able to prove a case of prior invention, section 137 of the Dirksen bill makes provision for a *prima facie* showing of priority by the applicant, to the satisfaction of the Commissioner, before a priority contest will be set up with the patentee.

Section 136 of S. 1042 provides for reexamination of an application after publication, upon citation of grounds of unpatentability by an interested member of the public. One of the grounds of such citation is lack of originality, sometimes called derivation. This is one of the grounds for interference under the existing law. The other ground is prior invention, and section 136(d) of Senator Dirksen's bill provides for determination of the right to patent in view of opposition by a member of the public on the ground of derivation, prior invention, or

prior public use of the invention more than one year prior to the effective filing date of the application. Section 136 provides for possible improvement in the quality of issued patents, by giving the public a right to cite prior art against the application which, by its very nature, is not likely to be before the examiner at the time he decides to allow the application.

It has been estimated that the number of priority contests that would be set up under sections 136 and 137 of the Dirksen bill would be less than one-half of the number of interferences presently declared. A very small fraction of the applications on file at any one time (probably less than one-half of 1 percent) would be involved in priority proceedings, so that the present delay in issuance of patents should be materially reduced. Moreover, the public would be on notice of the pendency of every claim which is involved in interference, by the provision for publication or issuance of the patent application of the senior application.

Accordingly, particularly if the provision for dating the term of a patent from filing date (sec. 154(b) of the Dirksen bill), is adopted, any possible disadvantage to the public in extended pendency of priority proceedings will be diminished to a minimum, while the incentive to applicants to resolve such proceedings as rapidly as possible will be increased to a maximum.

The provision for a priority proceeding is essential to retention of the grace period provided by the present law and retained under the Dirksen bill. With this quite limited retention of the principle of "first to invent," the distinguishing feature of the American patent system will be retained. Nevertheless, the disadvantages in said system now cited by those who would change to the first-to-file system would be substantially eliminated.

The provision for interim liability of those who would infringe the claims of applications published before issuance is to protect those applicants who otherwise would be at the mercy of the ruthless copier.

S. 2597 in its provisions for publication only at the will of the applicant, prior to allowance, is intended to preserve his rights in his invention until he knows what he will be given for its publication, and yet to provide incentives for publication as early as possible.

UNIVERSAL PRIOR ART

Section 102(a) of S. 1042 would make a very significant change in the present law by making mere knowledge, use or sale in foreign countries, prior art sufficient to bar patenting in the United States.

Some argument for this change to the principles of so-called universal prior art has been made on the basis of conformity with foreign law. However, the law in most foreign countries, as well as in the United States, is that foreign activities are of no significance and that the domestic public must have come into possession of the invention, or the invention is patentable to an original inventor who makes application for patent on it.

It may well be that all countries eventually will change to a universal prior art system, when we have a computer search facility that will enable us to search for foreign knowledge, use or sale, by merely pushing the appropriate buttons. That time is not now and it is not within the foreseeable future. When it comes will be an appropriate

time to amend our law to provide for universal prior art. In the meantime, it is believed that our law should treat as prior art only knowledge of the public in the United States, or use or sale in this country, as provided for by section 100(i) of S. 2597.

We understand Dr. Kincaid's remarks at the same meeting of the American Patent Law Association, to which I referred earlier, to indicate that the administration now agrees that adoption of this principle at this time would be premature.

OWNER FILING, JOINDER OF INVENTORS, AND TERM MEASURED FROM FILING

Mr. Fulwider's testimony of May 18, 1967, recommended the following three principles:

- (1) Permitting the owner of an invention to file a patent application thereon;
- (2) Relaxation of the rules as to joinder of applicants for patents in a single application;
- (3) Measurement of the term of patent from its filing date.

S. 1042 and the Dirksen bill are in agreement in respect of joinder and term from filing, but S. 2597 actually relaxes the rigid requirements of the present law as to owner filing, while S. 1042 merely changes the timing of those requirements. These requirements include an oath or declaration and an assignment, both signed by the inventor.

The submission of an oath of the inventor is required only by the United States, among the large industrialized countries, while the filing of an assignment is unnecessary in many of the larger countries.

The Dirksen bill retains the provision for submission of an oath or declaration, but this paper may be signed by the owner. Usually the owner will obtain at least most of his information concerning the invention from the inventor. Consequently, the owner's knowledge of such things as possible prior uses will therefore usually be at least as great as that of the inventor. Cases where this might not be true would generally involve inability of the owner to obtain the inventor's signature by reason of his inaccessibility or his refusal to sign. Existing law permits signature to the oath by the owner in such cases, so there would be no real changes as to such cases if section 115 of S. 2597 were adopted.

The requirement of an assignment is said to be for the protection of the inventor. Members of the patent bar will yield to no one in their concern for protection of the inventor's rights. Section 111(c) of S. 2597 provides for such protection by requiring service on the inventor of a copy of the application within 10 days after its filing and section 111(a) requires that the application include a statement of facts supporting the applicant's allegation of ownership.

The administration's insistence on the requirement for an assignment appears to be based on the fact that positive action by the inventor would be required to negate the applicant's assertion of ownership. Since, in an appropriate case, that action could be merely a simple letter notice to the Patent Office, justifying a requirement by the Office for proof of ownership, the burden would not seem very large.

Simplification of the filing requirements both for foreign and domestic applicants surely is desirable both to achieve conformity with the patent systems of most other countries, and to reduce the inconvenience and complications faced by U.S. applicants.

APPEALS FROM THE PATENT OFFICE

Section 147 of S. 1042 provides that any party, or the Commissioner of Patents, who is dissatisfied with a decision of the Court of Customs and Patent Appeals in an appeal from the Patent Office to that court, shall have the right to petition for the allowance of an appeal to the Court of Appeals for the District of Columbia Circuit.

As matters now stand, we have a dual system of review in which an applicant dissatisfied with the decision of the Board of Appeals may either (1) appeal on the record to the Court of Customs and Patent Appeals, or (2) may file a civil action for a trial *de novo* in the District Court for the District of Columbia, with appeals from that court to the Court of Appeals for the District of Columbia. Any review of the decisions either by the CCPA or the Court of Appeals for the District of Columbia is solely by petition for writ of certiorari to the U.S. Supreme Court. Consequently, in the present system the CCPA and the Court of Appeals for the District of Columbia stand substantially as equal courts.

The change in the Patent Code by section 147 of S. 1042 would make the CCPA a court inferior to the Court of Appeals for the District of Columbia. This demotion of that court is justified only on the following grounds:

- (1) That it is desirable that uniformity of decision be present, and such uniformity is not practically possible when the only review from the court of appeals and the CCPA is by writ of certiorari to the Supreme Court; and,

- (2) that the expertise of the Court of Appeals of the District of Columbia in infringement litigation is desirably used in review of decisions of the Court of Customs and Patent Appeals.

In point of fact, the need for a single court of review arises in only a very minuscule number of cases, since (as might be expected) the law applied by the court of appeals and that applied by the CCPA are almost always the same. Since both courts are staffed by human beings, there are disagreements, but these arise so seldom as not to justify any substantial change in the law.

As to the supposed expertise of the Court of Appeals for the District of Columbia, in patent cases, in fact very little infringement litigation arises in the District, primarily because of the absence of significant manufacturing activity and of corporate headquarters in that jurisdiction. The number of infringement cases decided by the court of appeals in any period of time is relatively insignificant as compared with the much larger amount of other kinds of litigation which that court is called upon to decide. Since the Court of Appeals, of course, sits by panels of three, the chances that any appeal from the Court of Customs and Patent Appeals would reach a panel of judges experienced in patent infringement litigation, are so very small as to be *de minimus*.

In fact there are nine judges in the Court of Appeals for the District of Columbia. In the period of 1961 to 1965, this court decided three infringement cases, and two of them were affirmed by brief *per curiam* opinions.

In the same period of time the Court of Customs and Patent Appeals decided on full opinion 687 cases.

In contrast to the Court of Appeals for the District of Columbia, all of the judges of the Court of Customs and Patent Appeals spend most

of their time hearing patent appeals from the Patent Office since about 70 percent of the cases before that court are in such category. Consequently, those judges are much more experienced in patent matters than the judges of any other court in the District of Columbia. The expertise accumulated by that court is used in appeals from the Patent Office, and may advantageously be made available in appeals in patent litigation throughout the country. For that reason, the American Bar Association house of delegates has adopted the following resolution:

Resolved, that the American Bar Association approves in principle the appointment of lawyers experienced in patent law as judges of a Federal Court of record established under Article III of the Constitution of the United States and the utilization of such judges to sit, from time to time, in any United States Court of Appeals by designation pursuant to Chapter 13 of Title 28, United States Code:

And in specific implementation of the foregoing resolution and for the additional purpose of promoting uniformity of interpretation and administration of the patent laws of the United States in the review of ruling of the Patent Office.

Be it further resolved, that the American Bar Association favors the revision of Titles 28 and 35 United States Code, to confer sole jurisdiction over review of decisions of the Patent Office on a court of record, not a district court of the United States, established under Article III of the Constitution of the United States, consisting of not less than nine judges specifically qualified in the law of intellectual property, anyone of whom is empowered to hear and determine in a trial de novo pursuant to the Federal Rules of Civil Procedure the issues presented by the decision to be reviewed, and any division of three of whom (exclusive of the trial judge in a given case) is empowered to hear and determine an appeal from any such trial de novo or directly from the Patent Office on the record made before it; and the powers and procedures of the court within its appellate jurisdiction, including sessions en banc and the review of its appellate decisions, shall conform to like powers, procedures and review applicable to the courts of appeal of the United States.

The procedure approved by this resolution is embodied in S. 2597, sections 141 and 145 of title 35, as well as in 28 U.S.C., sections 215 (b) and (c), 1541, 1543, et cetera.

The principles of this resolution and these sections of the Dirksen bill would accomplish the prime objective of section 147 of S. 1042, without relegating the Court of Customs and Patent Appeals to inferior status and without additionally burdening the already overburdened U.S. Court of Appeals for the District of Columbia. Moreover, both the district court and the Court of Appeals for the District of Columbia would be given more time to contend with the very tremendous criminal and civil dockets which those courts must sustain by reason of the status of the District of Columbia as a major municipality, as well as the seat of government. This is for the reason that those courts would no longer have to contend with appeals from the Patent Office, which have been a largely unwanted area of jurisdiction in those courts for a significant number of years.

LIMITATION OF ATTORNEYS IN FUTURE RECOGNITION OF PRACTITIONERS BEFORE THE PATENT OFFICE

Section 31 of S. 2597 would change existing law by providing that only members of the bar would be recognized in the future to practice before the Patent Office. Nevertheless, the nonlawyers presently registered to practice could continue such practice.

This change in the law is consistent with a resolution approved by the house of delegates to the American Bar Association in 1956, as follows:

Resolved, that the Association approves the principle of restricting future admission to practice before the Patent Office to members of the Bar.

The reason we suggest this change in the law is that the preparation and prosecution of patent applications bears all the hallmarks of the practice of law. Indeed, the Supreme Court has provided support for this viewpoint in the case of *Sperry v. Florida*, 373 U.S. 379, 10 L. Ed. 2d 428 (1963), in which it specifically was decided that the State of Florida could not obtain a valid injunction foreclosing a nonlawyer from practicing before the Patent Office, from an office in that State. During the course of a unanimous opinion in that case, the Supreme Court said at 373 U.S. 383:

We do not question the determination that under Florida law the preparation and prosecution of patent applications for others constitutes the practice of law. *Greenough v. Tax Assessors*, 331 US 486, 91 L ed 1621, 67 S Ct 1400, 172 ALR 329; *Murdock v. Memphis* (US) 20 Wall 590, 22 L ed 429. Such conduct inevitably requires the practitioner to consider and advise his clients as to the patentability of their inventions under the statutory criteria, 35 USC Pars. 101-103, 161, 171, as well as to consider the advisability of relying upon alternative forms of protection which may be available under state law. It also involves his participation in the drafting of the specification and claims of the patent application, 35 USC Par. 112, which this Court long ago noted "constitutes one of the most difficult legal instrument to draw with accuracy." *Topliff v. Topliff*, 145 US 156, 171, 36 L ed 658, 664, 12 S. Ct. 825. And upon rejection of the application, the practitioner may also assist in the preparation of amendments, 37 CFR Pars. 1. 117-1, 126, which frequently requires written argument to establish the patentability of the claimed invention under the applicable rules of law and in light of the prior art, 37 CFR Par. 1.119. Nor do we doubt that Florida has a substantial interest in regulating the practice of law within the State and that, in the absence of federal legislation, it could validly prohibit nonlawyers from engaging in this circumscribed form of patent practice.

But "the law of the State, though enacted in the exercise of powers not controverted, must yield" when incompatible with federal legislation.

Surely, if the practice before the Patent Office is the practice of law, the public interest demands that such practice should be restricted to members of the bar, so that applicants for patent in the Patent Office will be represented by persons subject to discipline by the courts and who the courts have determined to possess the qualifications to practice law. By enacting section 31 of the present statute, the Congress authorized nonlawyers to engage in the practice of law, insofar as practice before the Patent Office is concerned. Section 31 of S. 2597 would correct that situation by limiting that specialized legal practice to lawyers, and without affecting anyone already admitted.

CLARIFICATION OF THE LICENSABLE NATURE OF PATENT RIGHTS

Recommendation XXII of the President's Commission on the Patent System, submitted November 17, 1966, favored amendment of the law to clarify the rights of a patentee in respect of licensing his patent. That recommendation was not embodied in S. 1042. It, however, is embodied in S. 2597, in section 263. That section is consistent with the view of the American Bar Association, expressed by the house of delegates in the following resolution:

Resolved, that the American Bar Association approves in principle legislation by which:

(a) The licensable nature of patent rights would be clarified by specifically stating in the patent statute that applications for patents, patents, or any interest therein may be licensed in the whole, or in any specified part, of the field of use

to which the subject matter of the claims of the patent are directly applicable;

(b) A patent owner shall not be deemed guilty of a patent misuse merely because he agreed to a contractual provision or imposed a condition on a licensee, which has (1) a direct relation to the disclosure and claims of the patent, and (2) the performance of which is reasonable under the circumstances to secure to the patent owner the full benefit of his invention and patent grant;

(3) It is made clear that the "rule of reason" shall constitute the guideline for determining patent misuse.

It seems axiomatic that some clarification of the murky doctrine of "patent misuse" would be desirable.

It seems to be generally conceded that it is to the benefit of the public that new inventions be exploited, so that the public may have enjoyment of the fruits of those inventions. In order that the patent owner have the maximum opportunity to place the invention at the disposal of the public it is desirable that the owner have the maximum freedom to license his invention to others. One way in which a patent owner can exploit his invention is to license the sale of the product of that invention to one licensee for one field of use, and to other licensees for other fields of use. The patent owner, on the other hand, may desire to exploit his invention himself with respect to one field of use, but he may not have the marketing organization for exploitation of the invention in a totally different field. With an opportunity for field-of-use licensing, the patent owner can grant licenses for use of his invention in the fields in which he cannot exploit the invention.

Mr. Donald Turner of the Department of Justice in testifying before this subcommittee with respect to this recommendation of the Commission, first stated that an express recognition of field-of-use licensing was unnecessary if it was merely intended to mean that such licensing is not illegal per se, since that is the present state of the law. He then stated that if the purpose were somewhat more broad, as to legitimate the use of any field-of-use restriction whatever, the proposal "would be highly objectionable, because field-of-use restrictions in some contexts have a severe and unjustifiably adverse effect on competition."

The latter statement was not justified by any citation of authority. However, the suggestion that the mere expression of the legality of field-of-use licensing would be effective to legitimize any and all such licensing, without regard to the surrounding circumstances, is completely inconsistent with the fact that section 261 of the present Patent Code has for a number of years expressly authorized the grant of exclusive licenses. Certainly, the courts have not found that mere authorization to be an impediment to determinations of patent misuse, when the surrounding circumstances were such as to justify that conclusion.

In point of fact, the attitude of the Antitrust Division of the Department of Justice has for a number of years been such as to give patent owners reason for concern that field-of-use licensing would be attacked by that department. As indicated by the President's Commission, it would be desirable to clarify the law in this respect.

The provisions of subparagraph b and c of section 263 of S. 2597 are intended to require application of the "rule of reason" to determination of the question of patent misuse. Mr. Turner's testimony with respect to this statutory language has evidently considerably distorted the language in order to make it easier to oppose it. In fact, the language does not legitimize virtually every form of misuse or abuse of patents.

The section would clarify the law by expressing the reasonableness of securing to the patent owner the full benefit of his invention and patent grant. It also would give the patent owner some protection against the repeated efforts of the Antitrust Division to secure overrule of the 1926 *General Electric* case.

Senator. I will try to shorten this particular part of the statement by a few extemporaneous words here.

In both the Dirksen bill and S. 1042 there is provision for giving a patentee a right of action against an importer who imports a product from abroad, when that product was made by a process which is patented in the United States.

Now, that cause of action is necessary because it is possible under the existing state of the law for someone who wishes to import a product to go abroad to avoid the patent protection here, and to have the process utilized abroad. For instance, the *Northern Pigments* case that was decided by the Court of Customs and Patent Appeals some 35 years ago involved a situation of this kind, in which the persons who had been working for a licensee of a process patent in the United States went to Canada, and, in order to avoid the U.S. patent, practiced the process there, and exported the product into the United States. That kind of a case was held to be remediable under the Tariff Act, which is 19 United States Code 1337.

However, that decision was later reversed by the same court in the *Amtorg Trading Corp.* case, in about 1935. That case held that there was no right of action which extended the patent protection in the United States to cover acts done abroad.

As a result of the *Amtorg Trading* case, the Congress was asked to amend both the tariff law and the patent law to provide for this added protection to a process patentee. The Congress chose, after several years of consideration of this problem, to amend the Tariff Commission law, and what they did was to add a new section 1337(a) to title 19, expressly to make this kind of a cause of action, that is of practice abroad of a process patented here, to make that kind of thing unfair competition within the meaning of section 1337 of the Tariff Act.

Unfortunately that cause of action has not been effective, and the indication of its lack of effectiveness is that about 30 cases have been filed before the Tariff Commission involving section 1337 in the years since 1940, when this change was made in the law, and only one of them has actually resulted to the benefit of the petitioner. Not all of those cases were patent cases, but a number of them were.

The reason that the cause of action under the Tariff Act is not effective is that it requires some additional things besides the showing of infringement of a patent, besides the showing of use of the patented process.

Since the cause of action under the Tariff Act has not been effective, we feel that it should be added to the Patent Code, so that the patentee would have the real cause of action which the Congress intended to give him in 1940, but which for unfortunate reasons were not real protection for him.

For this reason we do not believe that the limitation which is present in S. 1042 on this protection should be included in the law. That limitation is that the protection would be extended only in the event that the process was not patented, or patentable I should say, in the foreign country. It would be very difficult to prove, of course, whether a process

is patentable in a foreign country, because it would involve interpretation of the laws of that country, and they differ very substantially.

To avoid these difficulties, and to give the cause of action which we believe Congress intended to give to process patentees, we recommend adoption of the section as it was originally recommended by the President's Commission, without the qualification.

PATENTEE ESTOPPEL

Section 294(a) of S. 1042 would estop a patentee in any subsequent action involving his patent, if the patent had previously been held invalid in a Federal court, or had there been given an interpretation limiting the scope of any claim. This estoppel would apply, even though the defendant in whose favor the estoppel was to be asserted was not a party to the prior litigation, or in privity with any party. Except for one notorious case, which might have been controlled by the courts, there is no indication of need for this restrictive provision.

The rigid and unqualified application of the doctrine of estoppel against a patentee whose claims had either been held invalid or limited in scope would deprive the patentee of the right he has under existing law to correct manifest errors made by a court in one circuit, by suit against an infringer in another circuit. Moreover, the way in which a patent claim is limited by one court is necessarily dependent upon the nature of the alleged infringement, as well as the nature of the prior art relied upon by the infringer in that court. It is quite possible that a court might hold a claim to be limited to the subject matter of the alleged infringement, and so find infringement. However, in another action against a different infringer, the accused infringing article might well be different from the article found to infringe in the first court. Certainly, the mere fact of that difference, without more, should not require the second court to find no infringement with respect to that different article. But application of this estoppel as would be provided by S. 1042 would seem to so require.

The argument that a patentee, having had his "day in court," should not be allowed to harass anyone else by suing for infringement on a claim previously held invalid is not supported by evidence that the right to bring a second suit is being abused. Where a second suit is not warranted, the doctrine of collateral estoppel has been effective in our Federal courts in other types of litigation. That doctrine was recently extended to patent litigation by Judge Steele of the District Court for the District of Delaware, in the case of *Nickerson v. Pep Boys—Manny, Moe and Jack*, 247 F. Supp. 221 (1965). The legislation of a rigid doctrine of estoppel, applicable in all cases, is undesirable because it would not permit the courts to vary their decision as to application of the estoppel, depending on the circumstances.

A cursory survey of patent cases in the circuit courts of appeals between 1953 and 1967 reveals that 17 patents were adjudicated in more than one suit, at the appellate level. Of the 17, the patent was held invalid by the first court in eight cases, and two of the eight were held valid in the second court. (In the other nine cases the first court found the patent valid.)

Considering the cases in this survey, the estoppel would appear to have properly been applicable in no more than six cases over the last 14 years. Such statistics do not indicate an abuse justifying enactment

of a rigid statute that evidently would work a hardship in some circumstances.

It is believed that the legislative enactment of this equitable remedy of estoppel is both unnecessary and undesirable.

REFUSAL TO RIGHT OF PRIORITY FOR CERTAIN CONTINUATION APPLICATIONS

We were discussing whether the administration had changed their view with respect to this particular point. The question is refusal to right of priority.

Section 120(b) (3) of S. 1042 would change existing law by eliminating an applicant's right to claim priority as to a preceding copending application, if an appeal in the preceding application had been filed, before the later application was placed on file.

The apparent reason for this change in the law which is proposed in S. 1042, is to foreclose an applicant from extending the period of time in which his invention is before the Patent Office, by restricting the filing of continuation applications. While this objective in general may be desirable, in particular circumstances it may be necessary to make use of the option of filing a continuation application, even after appeal to the Board of Appeals. The number of occasions in which this will arise will be considerably reduced by adoption of a patent term measured from the filing date, as proposed by both S. 1042 and S. 2597. With this new term provision in the law, there will be considerable incentive to an applicant to issue his patent as quickly as possible, so that his patent term will be as long as possible. Nevertheless, if circumstances are such as to make necessary the filing of a continuation application after appeal, the applicant will be the loser, because he will be giving up more of his term by the delay in issuance of his patent. Consequently, he will not file continuation applications in such cases, except in unusual circumstances.

The change that would be made in the law by section 120(b) (3) of S. 1042 in this respect, is both undesirable and unnecessary.

ELIMINATION OF "DOUBLE PATENTING," UNDER LIMITED CIRCUMSTANCES

The double patenting ground of rejection, or ground of holding of invalidity, is one of the most artificial points of the patent law. It generally is based on the ground that a second patent extends or enlarges the monopoly, so only one patent should issue for one invention. As a practical matter, the problem never arises as to identical subject matter, but rather only when different subject matter is involved and the nature of the differences is such that someone might consider them obvious. It is very difficult in many situations for an attorney to determine whether only a single invention, or a plurality of inventions are involved. In such cases, more than one application may be filed as a result of an honest determination by an attorney that the subject matter claimed in one application is patentably distinct from the subject matter claimed in another application.

If either the Patent Office, or the courts in later litigation, decide that the attorney was wrong in his decision, the inventor or patentee is without recourse. This unfortunate result is sometimes justified on the ground that to grant more than one patent for the same invention (or for subject matter not patentably different from the first inven-

tion), would be to extend the period of protection for the invention, to the detriment of the public.

The remedy of terminal disclaimer was designed, in part at least, to avoid this legitimate objection to the issuance of a plurality of patents on the same or very similar inventions. When a terminal disclaimer is filed, or when the patent is issued on the same date, clearly there is no disadvantage to the public in the issuance of more than a single patent, so long as all of the involved patents remain under the control of a single legal entity.

This doctrine that expiration on the same date should overcome possible holdings of double patenting, has been developing over the past several years by decisions of the Court of Customs and Patent Appeals. It appears that section 253(c) of S. 1042 is designed to overrule these decisions of the Court of Customs and Patent Appeals, by providing that the fact of expiration of patent protection on the same date should have no effect in determination of patentability or validity.

We believe this change in the law in S. 1042 would not be in the public interest and that a converse change to make this doctrine statutory in nature would be in the public interest. It certainly would make it possible to avoid such untoward results of patent litigation as the one decided by the Third Circuit Court of Appeals some 10 years ago in which a basic patent was held not to be infringed and the improvement patent, though infringed, was held to be invalid for double patenting over the first patent. The patentee in that action evidently did not receive the benefit his patent grants were intended to give him. If it were possible to prevent this kind of artificial holding from occurring, by application of terminal disclaimer or other mechanism to cause expiration on the same date, the public would not be harmed and patentees would be given their just measure of protection.

Enactment of sections 131 and 282(b) (2) of S. 2597 will avoid waste of time, effort, and expense in the Patent Office and in the courts, by eliminating the technical rejection and defense of double patenting, where the patent owner has taken steps to avoid enlargement and extension of the patent monopoly. Moreover, any misuse of either or both patents will still render the patents unenforceable, so there is no encroachment upon the public interest.

PATENT OFFICE FEES

Under present law, all of the significant fees charged by the Patent Office are fixed by statute. Section 41 of S. 1042 would change this by giving the Commissioner the right to fix fees. This right would be limited only by the requirement that the amounts of the fees be such as to effect in overall recovery in the range of 65 to 75 percent of the cost of operation of the Patent Office.

This committee will recall the recent controversy over the Commissioner's proposal that periodic fees be charged for maintaining issued patents in force. That controversy was resolved by the Congress deciding not to enact such fees. In our view the Commissioner should not be given the right to promulgate that class of fees.

The right to fix patent fees should remain where it always has resided—in the Congress.

CONCLUSION

Through Mr. Fulwider's testimony last May, and this statement, we have treated positions adopted by the American Bar Association which are believed relevant to S. 1042 and the various other bills pending before the subcommittee. While S. 2597 was not itself approved by the entire American Bar Association, it is in full accordance with the principles adopted by the association. Moreover, the Patent, Trademark, and Copyright Section of the American Bar Association has approved S. 2597, as it would be amended in accordance with our suggestions, as one desirable expression of the principles adopted by the entire association. We believe that S. 2597 is a positive approach to the problems now faced by the American patent system, and to the objectives of the President's Commission on the patent system. Indeed, it is our view that each of the six objectives listed in the report of the President's Commission would be better achieved by enactment of S. 2597 or similar legislation than by enactment of S. 1042. Accordingly, we recommended S. 2597 to the subcommittee as a desirable improvement in our patent system.

We have noted the Commerce Department comments on a number of provisions of the Dirksen bill which are not the subject of positions specifically approved by the American Bar Association. We refer now to the appendix to the Department letter to Senator Eastland to which reference was made earlier by Commissioner Brenner. A number of those comments contain criticisms which would be avoided by the amendments to the Dirksen bill which we have proposed. We can identify those criticisms now or by letter as you see fit, Mr. Chairman.

Senator McCLELLAN. I suggest you do it by letter and let your letter be incorporated in the permanent record at this point.

(The letter referred to follows:)

AMERICAN BAR ASSOCIATION,
Chicago, Ill., February 13, 1968.

Re S. 1042 and S. 2597.

Senator JOHN L. McCLELLAN,
Chairman, Subcommittee on Patents, Trademarks and Copyrights, Committee on the Judiciary, Senate Office Building, Washington, D.C.

DEAR SENATOR McCLELLAN: During the course of my testimony before your Subcommittee the other day, I indicated that certain of the criticisms of S. 2597 contained in the Commerce Department letter of Senator Eastland, apparently, were answered by amendments which we have previously suggested to S. 2597. I indicated a willingness to inform your Subcommittee of those particular points, either at the time of testimony or in a subsequent letter, and you suggested the letter.

Incidentally, the statement by Senator Dirksen which you added to the record following my testimony, proposes these very same amendments to S. 2597.

The matters I have referred to in the Commerce Department statement are indexed under Section 100, pages 2 and 3, Section 107, page 4, and Section 284, page 6, all in the appendix.

Specifically, under Section 100, the criticisms contained in the third and fourth paragraphs would not apply to the bill as proposed to be amended.

Similarly, under Section 107, the criticism of the last paragraph under this Section on page 4, would not apply to the amended bill.

Finally, under Section 284, the amendment would omit the provision in the bill for the recovery of "profits".

On behalf of the Patent Section of the American Bar Association, I would like to join in Mr. Graves' offer made on behalf of APLA, to furnish any technical

help we can to add in the further activities of your Subcommittee, including drafting appropriate language to accomplish objectives of the Subcommittee.

Very truly yours,

EDWARD F. McKIE, Jr.

Mr. McKIE. We have also noted the criticism of section 184 for designation of the Patent Office as the sole agency for granting of licenses to file a patent application in a foreign country. Reference is made to other statutes under which authority to control export of technical information is vested in agencies other than the Patent Office. The sole statute cited is the Export Control Act, which grants the authority to the President, not to any specific agency. That is at 50 U.S.C., appendix 2023. By Executive Order 10945 the President delegated that authority to the Secretary of Commerce, with the authority of successive delegations. Since the Patent Office is an agency of the Commerce Department, there should be no problem in respect of the Export Control Act in designation of the Patent Office as the sole agency to grant such licenses.

We recognize that further improvements may be effected in this and any other bill. We pledge our continued examination into all such possible improvements which we generate and which are suggested to us by others.

We appreciate very much the privilege of appearing before you to express the views of the American Bar Association. We have met with representatives of the Patent Office on several occasions to discuss this legislation, and we look forward to a continuation of this relationship. We will gladly cooperate with the committee and its staff, if we can assist in any way to improve the proposed patent legislation.

Thank you, Mr. Chairman.

Senator McCLELLAN. Thank you very much.

You have presented a rather exhaustive analysis of these bills. Your views and supporting arguments for your position will certainly be carefully considered by the committee.

(The prepared statement of Mr. McKie appears as follows:)

STATEMENT OF EDWARD F. McKIE, JR., CHAIRMAN OF THE SECTION OF PATENT, TRADEMARK AND COPYRIGHT LAW OF THE AMERICAN BAR ASSOCIATION CONCERNING S. 1042 AND S. 2597

Mr. Chairman and members of the subcommittee, my name is Edward F. McKie, Jr. I testify before you today on behalf of the American Bar Association as the Chairman of that Association's Section of Patent, Trademark and Copyright Law. Accompanying me is William E. Schuyler, Jr., a past chairman of our Section, and Chairman of the Committee of the Section which drafted the Bill which is now before you as S. 2597, introduced by Senator Dirksen.

So that the Subcommittee may be aware of the experience from which we speak, I will advise you that I have been in the patent field since about 1949 and have been continuously in the private practice, having worked first as a trainee while going to law school with a private law firm, and having worked since that time with various law firms. I am now a partner in a law firm in this city and our practice is general in nature insofar as patents and trademarks particularly are concerned, though we probably have a good deal more litigation practice than any other type.

Mr. Schuyler's experience is similar to mine except that it is much more extensive in nature. Both of us have been adjunct professors of law at Georgetown University, and Mr. Schuyler additionally has been a member of the Advisory Committee to the Secretary of Commerce on patents.

Our Section testified before this Subcommittee last May 18, through Mr. Robert Fulwider, who was then Chairman of the Section. At that time, Mr. Fulwider

testified principally in conjunction with three resolutions that had been adopted by the American Bar Association, through its Board of Governors. One of those resolutions requested this Subcommittee, as well as the corresponding Subcommittee of the House of Representatives, to defer submission of its report on S. 1042 and its equivalent Bill in the House of Representatives until such time as the American Bar Association and other interested parties should have had reasonable opportunity to fully consider S. 1042 and any proposed bills. We are very grateful that this Subcommittee has seen fit to extend to us the privilege to appear here again after we have had sufficient time to come to a final conclusion as to S. 1042 and have finished our drafting activities, such that the draft of the Patent Section of ABA could be introduced in the Senate as S. 2597, by Senator Dirksen.

Further improvements were made in that draft by the Patent Section at its meeting in Honolulu last August. These amendments have been communicated to the Subcommittee and we hope that Senator Dirksen's Bill will be amended to incorporate them. For convenience, the section identifications employed in this statement will refer to S. 2597 as it would be amended in accordance with the additional recommendations made by the Patent Section in its Honolulu Meeting. The significance of the amendments is explained in the attached appendix. However, since the amendments are fairly detailed in nature, they need not be further dealt with. The Dirksen Bill, as thus amended, has been approved by the Patent, Trademark and Copyright Section of the American Bar Association as one embodiment of principles adopted by the Association.

FIRST-TO-INVENT AND GRACE PERIOD

Mr. Fulwider's statement dealt at considerable length with our objections to certain sections of S. 1042 which would establish the "first to file" principle, exclusively, for the granting of patents, and which would abolish the "grace period", by which American inventors have been permitted to develop their inventions to the point of practical application before filing.

The retention of the grace period is embodied in the Dirksen Bill at Sections 100(i) (3) and 102(c).

In place of the "first to file" principle embodied in Section 102 of S. 1042, and also in place of the declaration by the Commissioner of interferences between pending applications provided for by Section 135 of the present Patent Code, the Dirksen Bill provides in Section 137 for a six-month period after issuance of a patent for the applicant of a pending application to request a priority contest with the patentee. This provision is in accordance with a resolution adopted by the House of Delegates of the American Bar Association, as follows:

"Resolved, That the American Bar Association approves in principle elimination of the declaration by the Patent Office of interferences between pending applications, in favor of permitting the issuance of patents with another applicant having the right to provoke an interference therewith, even though he cannot specifically copy the patent claims."

We have noted the statement by Assistant Secretary Kincaid, in his January 24 speech to the American Patent Association, that any modification of the first-to-file system of S. 1042 should include strong incentives for early filing. Dr. Kincaid mentioned three different proposals for such incentives, all of which involved arbitrary time limits on proofs of prior invention.

Our Association has been studying mechanisms of providing such incentives. In that study we have been concerned with the failure of these arbitrary time limit proposals to accommodate the great range of differing circumstances which may affect different kinds of inventions. As an example, there is an extreme difference in the time required to develop and to file a patent application on a new ice tray and on a new class of rust inhibiting compounds. Any time limit selected to accommodate the rust inhibitor invention would not provide the desired incentive for early filing to the inventor of the ice tray.

It may be possible to adopt a less arbitrary incentive that can accommodate disparate fact situations. This possibility might be based in the rules adopted by the courts in defenses based on prior invention under Section 102(g). Those rules include one that a prior inventor may lose his rights by failure to file his patent application within a reasonable period of time, and another than any case of prior invention, whether or not patented, requires proof of steps taken to get the invention into the hands of the public within a reasonable time after completion of the invention.

Statutory expression of these rules, applicable to priority proceedings in the Patent Office, might furnish a less arbitrary incentive than those so far suggested.

We will continue and expedite our consideration of all such incentive possibilities.

The Dirksen Bill, like S. 1042, also provides for determination of interfering subject matter (in Section 136(d)) after publication of an allowable application under Section 151(a). Section 136(d) of S. 1042, however, provides for contests only in respect of questions of *originality* of invention, while Section 136(d) of S. 2597 additionally provides for contests as to *priority* of invention.

The contests of Section 136(d) of S. 2597 are part of the larger matter of improvement of the validity of future patents by publication before issuance, and reexamination after citation of prior art by the public. Positions of the ABA pertinent to the larger matter therefore will now be explained.

PUBLICATION PRIOR TO ISSUANCE

The House of Delegates of the American Bar Association has adopted the following resolution:

"*Resolved*, That the American Bar Association approves in principle consideration by the Patent Office of patents and publications cited by the public within six months after publication of the application, provided that the applicant has an opportunity to amend the scope of any claim."

The Association has also adopted the following resolution relevant to the question of publication prior to issuance:

"*Resolved*, That the American Bar Association approves in principle that in the event applications are published prior to their issuance, a procedure should be established by which the owner of the published application may collect damages from an 'infringer' who has received actual notice from the application owner of infringement of a valid claim which has been allowed by the Patent Office."

Nevertheless, the Association has opposed mandatory publication of applications before allowance in the following language:

"*Resolved*, That the American Bar Association opposes in principle mandatory publication of pending applications without the authority of the applicant, before the allowance of the claims thereof; or after the allowance of the claims thereof, without first giving the applicant a reasonable time within which to elect whether or not to abandon the application, thereby preventing publication."

The Sections of the Dirksen Bill which would permit issuance of patents to the "first to file", with an option priority contest by a junior applicant, are Section 100(i) (5), Section 136(d) (2) and (3), and Section 137. The provision for interim liability in the event of publication before issuance is contained in Section (f) and Section 284(b). The provision for a right to oppose issuance of an application for unpatentability is contained in Section 136 but Section 123(a) and Section 151(a) would provide for publication of such opposition only in the event of allowance of the application.

The above proposals would make a very substantial change in the present law, but it is believed that the changes would be to the benefit of the patent system without any substantial decrease in the present incentives to investors not only to invent, but also to develop their inventions to the point of practical application before filing patent applications. Moreover, these provisions should insure that priority contests are declared only when desired by junior applicants and not, as now, whether or not the respective applicants are desirous of resolution of the question of priority by an interference. Indeed, in order that interferences would be declared only when the junior inventor is likely to be able to prove a case of prior invention, Section 137 of the Dirksen Bill makes provision for a *prima facie* showing of priority by the applicant, to the satisfaction of the Commissioner before a priority contest will be set up with the patentee.

Section 136 of S. 1042 provides for reexamination of an application after publication, upon citation of grounds of unpatentability by an interested member of the public. One of the grounds of such citation is lack of originality, sometimes called "derivation." This is one of the grounds for interference under the existing law. The other ground is "prior invention", and Section 136(d) of Senator Dirksen's bill provides for determination of the right to patent in view of opposition by a member of the public on the ground of deprivation or lack of originality, prior invention, or prior public use of the invention more than one year prior to the effective filing date of the publication. Section 136 provides for possible improvement in the quality of issued patents, by giving the public a right

to cite prior art against the application which, by its very nature, is not likely to be before the Examiner at the time he decides to allow the application.

It has been estimated that the number of priority contests that would be set up under Sections 136 and 137 of the Dirksen Bill would be less than one-half of the number of interferences presently declared. A very small fraction of the applications on file at any one time (probably less than one-half of one percent) would be involved in prior proceedings, so that the present delay in issuance of patents should be materially reduced. Moreover the public would be on notice of the pendency of every claim which is involved in interference, by the provision for publication or issuance of the patent application of the senior applicant. Accordingly, particularly if the provision for dating the term of a patent from filing date (Section 154(b) of the Dirksen Bill), is adopted, any possible disadvantage to the public in extended pendency of priority proceedings will be diminished to a minimum, while the incentive to applicants to resolve such proceedings as rapidly as possible will be increased to a maximum.

The provision for a priority proceeding is essential to retention of the grace period provided by the present law and retained under the Dirksen Bill. With this quite limited retention of the principle of "first to invent", the distinguishing feature of the American patent system will be retained. Nevertheless, the disadvantages in said system now cited by those who would change to the "first to file" system would be substantially eliminated.

The provision for interim liability of those who would infringe the claims of applications published before issuance is to protect those applicants who otherwise would be at the mercy of the ruthless copier. Section 271(f) and Section 284(b) of the Dirksen Bill provide adequate protection for the applicant, while insuring the right of the public to continue practicing what is contained in the prior art, since that prior art may be cited against even allowed claims of pending applications, to cause reduction or elimination of the unjustified protection given such applications.

Under Section 123 of S. 1042, a patent application will be published 18 to 24 months after filing. This automatic publication is supposed to accelerate the dissemination of technological information to the public.

Thus, the confidential status of pending applications would be preserved only for a period of 18 to 24 months, whether or not the Patent Office had taken action on the application. Such publication would make patent literature available at an earlier date. Assuming such publications are classified and stored so they may be retrieved expeditiously and inexpensively, an entrepreneur could avoid investing in a development which was already being pursued by a competitor.

In the case of a company which does not finance its own research and development, the reservoir of published applications would provide the results of innumerable research projects at nominal cost. By selecting those inventions which could be produced and marketed without large capital expenditure, such a company could continually introduce short term new products with no liability until the Patent Office allowed the pending application, and then only a reasonable royalty until the patent issued. Such contingent liability would be minimal, compared to the cost of financing research and development.

Frequently, however, an applicant does not wish to disclose his improvements or inventions until he ascertains the scope of patent protection to be afforded. If he feels the scope is adequate, he will request issuance of the patent and then license others to use the invention. If he deems the scope inadequate, he will abandon the application and attempt to maintain the invention as a trade secret. This is particularly true where: (1) the invention is an improvement of existing processes or machinery; (2) the invention is a new product requiring heavy capital investment; or (3) the potential market may be limited. In these situations, the incentive of the patent system is destroyed by automatic publication before the applicant knows the scope of patent protection. Consequently, there will be a tendency to confine use of the patent system to those areas where premature publication will not be injurious to the applicant.

These situations are exceptions because the subject matter of most worthwhile patent applications is disclosed in one way or another before the applications have been pending two years. Even in these exceptional situations, however, the incentive of the patent system should encourage disclosure and ultimate publication of inventions which could otherwise remain secret.

S. 2597 in its provisions for publication only at the will of the applicant, prior to allowance, is intended to preserve his rights in his invention until he knows

what he will be given for its publication, and yet to provide incentives for publication as early as possible.

UNIVERSAL PRIOR ART

Section 102(a) of S. 1042 would make a very significant change in the present law by making mere knowledge, use or sale in foreign countries, prior art sufficient to bar patenting in the United States. The ABA House of Delegates adopted the following resolution relevant to that proposed change:

"Resolved, That the American Bar Association opposes in principle any change in 35 U.S.C. 102 which would include foreign knowledge, use or sale as prior art."

Those of us who specialize in the litigation area speak somewhat against our own selfish interest in urging that the so-called "universal prior art" principle not be imported into the United States patent practice. This is for the reason that the opportunities of litigating patent attorneys to charge for services to patentees and to defendants in infringement litigation would be very substantially increased, if the law were to be changed to provide that foreign knowledge, use or sale be prior art effective against patent applications or patents in the United States. Of course, such foreign knowledge, use or sale would not be available for search by the Patent Office, so that any patent might well be invalidated by proof that the invention of that patent was anticipated by such prior art. Consequently, every patent lawsuit would be very likely to include at least research into the possibilities of invalidation of the patent by reason of foreign knowledge, use or sale, and additionally, possible testimony concerning such activities. Those investigations and those testimony sessions would naturally involve those who specialize in the litigation practice. In fact, amendment of the law to expand the prior art to include foreign knowledge, use and sale, might furnish us with the loophole to escape the restrictions on foreign travel which the President has recently suggested.

Nevertheless, we do oppose very strongly this proposed amendment to the Patent Code. Our whole Patent system has been based on the idea that the incentive of the U.S. patent should be provided to one who makes an invention and puts the *American* public in possession of that invention by the filing of a patent application. Nevertheless, the monopoly of a patent obviously should not be granted with respect to an invention which is already in the public's possession by reason of prior knowledge, use or sale. Whether or not that knowledge, use or sale has placed the *American* public in possession of the invention is of course the prime question. Our law has always employed the objective standard that an invention which is the subject of public knowledge, use or sale in this country, is likely to have come to the attention of the *American* public, but that an invention which has achieved only foreign knowledge, use or sale is not likely to be in the possession of our public. Consequently, our law has always permitted the grant of a patent to an original inventor, even if the invention was subject to foreign knowledge, use or sale. The change in the law to bar patenting in the United States by reason of foreign knowledge, use or sale would, in our view, be a step backward which would benefit primarily patent attorneys and those who have sufficient economic wherewithal to defend against the smaller patentee by increasing the expense of litigation through efforts to prove foreign activities.

Some argument for this change to the principles of so-called "universal prior art" has been made on the basis of conformity with foreign law. However, the law in most foreign countries, as well as in the United States, is that foreign activities are of no significance and that the domestic public must have come into possession of the invention, or the invention is patentable to an original inventor who makes application for patent on it. It may well be that all countries eventually will change to a "universal prior art" system, when we have a computer search facility that will enable us to search for foreign knowledge, use or sale, by merely pushing the appropriate buttons. That time is not now and it is not within the foreseeable future. When it comes will be an appropriate time to amend our law to provide for universal prior art. In the meantime, it is believed that our law should treat as prior art only knowledge of the public in the United States, or use or sale in this country, as provided for by Section 100(i) of S. 2597.

We understand Dr. Kincaid's remarks to indicate that the administration now agrees that adoption of this principle at this time would be premature.

OWNER FILING, JOINDER OF INVENTORS, AND TERM MEASURED FROM FILING

Mr. Fulwider's testimony of May 18, 1967 recommended the following three principles:

- (1) permitting the owner of an invention to file a patent application thereon;
- (2) relaxation of the rules as to joinder of applicants for patents in a single application;
- (3) measurement of the term of a patent from its filing date.

These principles are embodied in the following sections of S. 2597:

- (1) owner filing—§§ 111(a), (b); 115(b)
- (2) joinder—§ 116(b); 111(e); 256
- (3) term from filing—§ 154(b).

S. 1042 and the Dirksen Bill are in agreement in respect to joinder and term from filing, but S. 2597 actually relaxes the rigid requirements of the present law as to owner filing, while S. 1042 merely changes the timing of those requirements. These requirements include an oath or declaration and an assignment both signed by the inventor.

The submission of an oath of the inventor is required only by the United States, among the large industrialized countries, while the filing of an assignment is unnecessary in many of the larger countries.

The Board of Governors of ABA has adopted the following resolution:

"Resolved, That the American Bar Association favors in principle permitting the owner of an invention, whether or not he be the inventor, to file a patent application covering that invention, provided that the inventor be named in the application."

The Dirksen Bill retains the provision for submission of an oath or declaration, but this paper may be signed by the owner. Usually the owner will obtain at least most of his information concerning the invention from the inventor. Consequently, the owner's knowledge of such things as possible prior uses will therefore usually be at least as great as that of the inventor. Cases where this might not be true would generally involve inability of the owner to obtain the inventor's signature by reason of his inaccessibility or his refusal to sign. Existing law permits signature to the oath by the owner in such cases, so there would be no real change as to such cases if Section 115 of S. 2597 were adopted.

The requirement of an assignment is said to be for the protection of the inventor. Members of the patent bar will yield to no one in their concern for protection of the inventor's rights. Section 111(c) of S. 2597 provides for such protection by requiring service on the inventor of a copy of the application within ten days after its filing and Section 111(a) requires that the application include a statement of facts supporting the applicant's allegations of ownership.

The administration's insistence on the requirement for an assignment appears to be based on the fact that positive action by the inventor would be required to negate the applicant's assertion of ownership. Since, in an appropriate case, that action could be merely a simple letter notice to the Patent Office, justifying a requirement by the Office for proof of ownership, the burden would not seem very large.

The allowance of true owner filing, rather than the mere delay of the requirements for inventor execution, is surely consistent with one of the objectives of the President's Commission.

"5. To make U.S. patent practice more compatible with that of other major countries, wherever consistent with the objectives of the U.S. patent system."

It is also consistent with the following ABA resolution:

"Resolved, That the American Bar Association approves in principle mutual efforts among foreign countries and the United States to improve the international operability of patent systems throughout the world but opposes in principle changes in the United States patent statutes made to increase uniformity with foreign patent systems, unless it be shown that such changes will favorably affect the domestic operation and effectiveness of the United States patent system."

Simplification of the filing requirements both for foreign and domestic applicants surely is desirable both to achieve conformity with the patent systems of most other countries, and to reduce the inconveniences and complications faced by U.S. applicants.

APPEALS FROM THE PATENT OFFICE

Section 147 of S. 1042 provides that any party, or the Commissioner of Patents, who is dissatisfied with a decision of the Court of Customs and Patent Appeals in an appeal from the Patent Office to that Court, shall have the right to petition for the allowance of an appeal to the Court of Appeals for the District of Columbia Circuit. This significant change in the law has been the subject of the following resolution approved by the ABA House of Delegates:

"Resolved, That the American Bar Association opposes in principle statutory enactment which would make decisions of the Court of Appeals for the District of Columbia."

As matters now stand, we have a dual system of review in which an applicant dissatisfied with the decision of the Board of Appeals may either (1) appeal on the record to the Court of Customs and Patent Appeals; or (2) may file a civil action for a trial de novo in the District Court for the District of Columbia, with appeal from that Court to the Court of Appeals for the District of Columbia. Any review of the decisions either by the CCPA or the Court of Appeals for the District of Columbia is solely by Petition for writ of certiorari to the United States Supreme Court. Consequently, in the present system the CCPA and the Court of Appeals for the District of Columbia stand substantially as equal courts.

The change in the Patent Code by Section 147 of S. 1042 would make the CCPA a Court inferior to the Court of Appeals for the District of Columbia. This demotion of that Court is justified only on the following grounds: (1) That it is desirable that uniformity of decision be present, and such uniformity is not practically possible when the only review from the Court of Appeals and the CCPA is by writ of certiorari to the Supreme Court; and, (2) that the expertise of the Court of Appeals of the District of Columbia in infringement litigation is desirably used in review of decisions of the Court of Customs and Patent Appeals.

In point of fact, the need for a single court of review arises in only a very minuscule number of cases, since (as might be expected) the law applied by the Court of Appeals and that applied by the CCPA are almost always the same. Since both Courts are staffed by human beings, there are disagreements, but these arise so seldom as not to justify any substantial change in the law.

As to the supposed expertise of the Court of Appeals for the District of Columbia in patent cases, in fact very little infringement litigation arises in the District, primarily because of the absence of significant manufacturing activity and of corporate headquarters in that jurisdiction. The number of infringement cases decided by the Court of Appeals in any period of time is relatively insignificant as compared with the much larger amount of other kinds of litigation which that Court is called upon to decide. Since the Court of Appeals, of course, sits by panels of three, the chances that any appeal from the Court of Customs and Patent Appeals would reach a panel of judges experienced in patent infringement litigation, are so very small as to be *de minimus*.

In contrast, all of the judges of the Court of Customs and Patent Appeals spend most of their time hearing patent appeals from the Patent Office since about 70% of the cases before that Court are in such category. Consequently, those judges are much more experienced in patent matters than the judges of any other court in the District of Columbia. The expertise accumulated by that Court is used in appeals from the Patent Office, and may advantageously be made available in appeals in patent litigation throughout the country. For that reason, the ABA House of Delegates has adopted the following resolution:

"Resolved, That the American Bar Association approves in principle the appointment of lawyers experienced in patent law as judges of a Federal Court of record established under Article III of the Constitution of the United States and the utilization of such judges to sit, from time to time, in any United States Court of Appeals by designation pursuant to Chapter 13 of Title 28, United States Code ;

"And in specific implementation of the foregoing resolution, and for the additional purpose of promoting uniformity of interpretation and administration of the patent laws of the United States in the review of ruling of the Patent Office ; "be it further

Resolved, That the American Bar Association favors the revision of Titles 28 and 35 United States Code, to confer sole jurisdiction over review of decisions of the Patent Office on a court of record, not a district court of the United States, established under Article III of the Constitution of the United States, consisting of not less than nine judges specifically qualified in the law of intellectual property, anyone of whom is empowered to hear and deter-

mine in a trial de novo pursuant to the Federal Rules of Civil Procedure the issues presented by the decision to be reviewed, and any division of three of whom (exclusive of the trial judge in a given case) is empowered to hear and determine an appeal from any such trial de novo or directly from the Patent Office on the record made before it; and the powers and procedures of the court within its appellate jurisdiction, including sessions en banc and the review of its appellate decisions, shall conform to like powers, procedures and review applicable to the courts of appeal of the United States."

The procedure approved by this resolution is embodied in S. 2597, Sections 141 and 145 of Title 35, as well as in 28 U.S.C. Sections 215 (b) and (c), 1541, 1543, etc.

The principles of this resolution and these sections of the Birkens Bill would accomplish the prime objective of Section 147 of S. 1642, without relegating the Court of Customs and Patent Appeals to inferior status and without additionally burdening the already overburdened United States Court of Appeals for the District of Columbia. Moreover, both the District Court and the Court of Appeals for the District of Columbia would be given more time to contend with the very tremendous criminal and civil dockets which those Courts must sustain by reason of the status of the District of Columbia as a major municipality, as well as the seat of Government. This is for the reason that those Courts would no longer have to contend with appeals from the Patent Office, which have been a largely unwanted area of jurisdiction in those Courts for a significant number of years.

Indeed, in the recent past, while Judge Jackson was able to sit continuously after retirement from the Court of Customs and Patent Appeals, all patent appeals to the United States District Court for the District of Columbia were heard by that distinguished senior Judge. The purpose of the amendments to the law suggested by the subject resolution of the American Bar Association is to take advantage of and to further utilize the expertise gained by the judges of the Court of Customs and Patent Appeals through the hearing of many, many patent matters over the years. The advantage to a District Court of the use of such expertise was evidenced by assignment by the District Court for the District of Columbia of all patent appeals cases to this former judge of the Court of Customs and Patent Appeals.

A further significant advantage to this proposed change in the appellate system is the creation of a body of experienced and expert patent judges who can be utilized by the Courts of Appeals throughout the nation, in the hearing of patent cases. Judge Arthur Smith of the Court of Customs and Patent Appeals has sat with a Court of Appeals in the past and the experience proved to be worthwhile not only for that Court, but also in his increased breadth of understanding of the appellate procedure as it applies to cases generally. In this manner, the greatest possible benefit could be achieved from the appellate activity in respect of patent litigation, through the broadening effect of that litigation on judges of the Court especially assigned to deal with appeals from the Patent Office.

DEFERRED EXAMINATION

Chapter 18 of S. 1642 would give the Secretary of Commerce authority to institute a kind of deferred examination of patent applications, when he found it appropriate to do so. The Commissioner of Patents has testified that he does not intend at the present time to implement this authority, because it is unnecessary. It is the view of the American Bar Association that the Congress should have the authority to determine whether or not any kind of new examination system should be instituted, and that it should not delegate to an executive official determination of whether and when that examining authority should be instituted. Accordingly, the House of Delegates has adopted the following resolution:

"Resolved, That the American Bar Association opposes in principle granting of standby statutory authority to any agency to institute a deferred examination procedure at a later date."

In the event it proves necessary to institute deferred examination, the administration should, discharging its responsibility, come to the Congress and ask for authority for that system, with appropriate justification therefor.

There are many substantial arguments against deferred examination, and many believe that if the United States were to institute this kind of examination, it would spell the death knell for the novelty examination procedure which the United States instituted in 1836 and has carried on continuously longer than any other country in the world. Indeed, many countries throughout the world

have followed the United States in the institution of an examination procedure, and even France very recently has departed from a registration procedure of well over a hundred years to institute examination in certain categories of patent applications. Certainly the danger which many see to our present novelty examination should not be incurred without a full debate before the Congress of the pros and cons of deferred examination, and a resolution of the question by the Congress after a full examination into the situation. That kind of informed judgment is not possible in the context of a proposal for standby statutory authority for deferred examination. Accordingly, it is submitted that Chapter 18 of S. 1042 should not be enacted.

LIMITATION TO ATTORNEYS IN FUTURE RECOGNITION OF PRACTITIONERS BEFORE THE PATENT OFFICE

Section 31 of S. 2597 would change existing law by providing that only members of the Bar would be recognized in the future to practice before the Patent Office. Nevertheless, the non-lawyers presently registered to practice could continue such practice.

This change in the law is consistent with a resolution approved by the House of Delegates to the American Bar Association in 1956, as follows:

"Resolved, That the Association approves the principle of restricting future admission to practice before the Patent Office to members of the Bar."

The reason for making this change in the law is that the preparation and prosecution of Patent applications bears all the hallmarks of the practice of law. Indeed, the Supreme Court has provided support of this viewpoint in the case of *Sperry v. Florida*, 373 U.S. 379, L. Ed. 2d 428 (1963), in which it specifically was decided that the State of Florida could not obtain a valid injunction foreclosing a non-lawyer from practicing before the Patent Office, from an office in that State. During the course of a unanimous opinion in that case, the Supreme Court said at 373 U.S. 383:

"We do not question the determination that under Florida law the preparation and prosecution of patent applications for others constitutes the practice of law. *Greenough v. Tax Assessors*, 331 US 486, 91 L ed 1621, 67 S Ct 1400, 172 ALR 329; *Murdock v. Memphis (US)* 20 Well 590, 22 L ed 429. Such conduct inevitably requires the practitioner to consider and advise his clients as to the patentability of their inventions under the statutory criteria, 35 USC §§ 101-103, 161, 171, as well as to consider the advisability of relying upon alternative forms of protection which may be available under state law. It also involves his participation in the drafting of the specification and claims of the patent application, 35 USC § 112, which this Court long ago noted 'constitute[s] one of the most difficult legal instruments to draw with accuracy,' *Topliff v. Topliff*, 145 US 156, 171, 36 L ed 658, 664, 12 S Ct 825. And upon rejection of the application, the practitioner may also assist in the preparation of amendments, 37 CFR §§1.117-1.126, which frequently requires written argument to establish the patentability of the claimed invention under the applicable rules of law and in light of the prior art, 37 CFR § 1.119. Nor do we doubt that Florida has a substantial interest in regulating the practice of law within the State and that, in the absence of federal legislation, it could validly prohibit nonlawyers from engaging in this circumscribed form of patent practice.¹

"But 'the law of State, though enacted in the exercise of powers not controverted, must yield' when incompatible with federal legislation. *Gibbons v. Ogden (US)* 9 Wheat. 1, 211, 6 L ed 23, 73.

Surely, if the practice before the Patent Office is the practice of law, the public interest demands that such practice should be restricted to members of the Bar, so that applicants for patent in the Patent Office will be represented by persons subject to discipline by the courts and who the courts have determined to possess the qualifications of a lawyer. By enacting Section 31 of the present statute, the Congress authorized non-lawyers to engage in the practice of law, insofar as practice before the Patent Office is concerned. Section 31 of S. 2597 would correct that situation by limiting that specialized legal practice to lawyers, and without affecting anyone already admitted.

¹ See *Konigsberg v. State Bar of California*, 366 U.S. 36, 40, 41, 6 L. ed. 2d 105, 110, 111, 81 S. Ct. 997; *Schwartz v. Board of Bar Examiners*, 353 U.S. 232, 239, 1 L. ed. 2d 796, 801, 77 S. Ct. 752, 64 A.L.R. 2d 288; *West Virginia State Bar v. Easley*, 144 W. Va. 504, 109 S.E. 2d 420; *Gardner v. Conway*, 234 Minn. 468, 48 N.W. 2d 788.

CLARIFICATION OF THE LICENSABLE NATURE OF PATENT RIGHTS

Recommendation XXII of the President's Commission on the Patent System, submitted November 17, 1966, favored amendment of the law to clarify the rights of a patentee in respect of licensing his patent. That recommendation was not embodied in S. 1042. It, however, is embodied in S. 2597, in Section 263. That Section is consistent with the view of the American Bar Association, expressed by the House of Delegates in the following Resolution:

"*Resolved*, That the American Bar Association approves in principle legislation by which:

(a) The licensable nature of patent rights would be clarified by specifically stating in the patent statute that applications for patents, patents, or any interest therein may be licensed in the whole, or in any specified part, of the field of use to which the subject matter of the claims of the patent are directly applicable;

(b) A patent owner shall not be deemed guilty of a patent misuse merely because he agreed to a contractual provision or imposed a condition on a licensee, which has (1) a direct relation to the disclosure and claims of the patent, and (2) the performance of which is reasonable under the circumstances to secure to the patent owner the full benefit of his invention and patent grant;

(c) It is made clear that the "rule of reason" shall constitute the guideline for determining patent misuse."

It seems axiomatic that some clarification of the murky doctrine of "patent misuse" would be desirable. Some of the opposition to such clarification appears to be based on a misunderstanding of the nature of the patent right itself. While that right is monopolistic in nature, it does not deprive the public of any right which it had prior to the patent, because by nature an invention is patentable only if it is novel. Consequently, anything which the public has already had the right to use cannot be patentable, and the patent right cannot foreclose the public from enjoyment of any of its earlier-vested rights. The patent, of course, merely grants to the owner of that right the power to exclude others from the use of the right, so that the patent owner may obtain adequate compensation for his invention, for a limited period of time.

It seems to be generally conceded that it is to the benefit of the public that new inventions be exploited, so that the public may have enjoyment of the fruits of those inventions. In order that the patent owner have the maximum opportunity to place the invention at the disposal of the public, it is desirable that the owner have the maximum freedom to license his invention to others. One way in which a patent owner can exploit his invention is to license the sale of the product of that invention to one licensee for one field of use, and to other licensees for other fields of use. The patent owner, on the other hand, may desire to exploit his invention himself with respect to one field of use, but he may not have the marketing organization for exploitation of the invention in a totally different field. With an opportunity for field-of-use licensing, the patent owner can grant licenses for use of his invention in the fields in which he cannot exploit the invention.

Mr. Donald Turner in testifying before this Subcommittee with respect to this recommendation of the Commission, first stated that an express recognition of field-of-use licensing was unnecessary if it was merely intended to mean that such licensing is not illegal *per se*, since that is the present state of the law. He then stated that if the purpose were somewhat more broad, as to legitimate the use of any field-of-use restriction whatever, the proposal . . . "would be highly objectionable, because field-of-use restrictions in some contexts have a severe and unjustifiably adverse effect on competition."

The latter statement was not justified by any citation of authority. However, the suggestion that the mere expression of the legality of field-of-use licensing would be effective to legitimize any and all such licensing, without regard to the surrounding circumstances, is completely inconsistent with the fact that Section 261 of the present Patent Code has for a number of years expressly authorized the grant of exclusive licenses. Certainly, the Courts have not found that mere authorization to be an impediment to determinations of patent misuse, when the surrounding circumstances were such as to justify that conclusion.

In point of fact, the attitude of the Antitrust Division of the Department of Justice has for a number of years been such as to give patent owners reason for concern that field-of-use licensing would be attacked by that department.

As indicated by the President's Commission, it would be desirable to clarify the law in this respect.

The provisions of subparagraphs b and c of Section 263 of S. 2597 are intended to require application of the "rule of reason" to determination of the question of patent misuse. Mr. Turner's testimony with respect to this statutory language has evidently considerably distorted the language in order to make it easier to oppose it. In fact, the language does not legitimize virtually every form of misuse or abuse of patents. The section would clarify the law by expressing the reasonableness of securing to the patent owner the full benefit of his invention and patent grant. It also would give the patent owner some protection against the repeated efforts of the Antitrust Division to secure overrule of the 1926 *General Electric* case.

For the reasons expressed by the President's Commission, the clarification of the law embodied in Section 263 is desirable and should be enacted.

RESTRICTION AGAINST IMPORTATION OF PRODUCTS MADE ABROAD BY A PROCESS PATENTED IN THE UNITED STATES

Section 271(b) of both S. 1042 and S. 2597 would change existing law by making it an act of infringement to import into the United States a product made in another country by a process patented in the United States. The purpose of adding this protection is to prevent the evasion of patent protection in this country by going abroad to obtain products which are produced there in accordance with a process patented here. The only existing protection against this kind of activity is contained in the Tariff Act, and the requirements of that Act are such as to make it nearly impossible to obtain any effective protection for patentees through it.

In contrast to the Dirksen bill, S. 1042 would add a very significant qualification to the protection just referred to. That qualification is that patent protection for the process is not available in the country in which the process is being practiced. As a practical matter, this qualification would probably be such as to negate the practical application of this new protection, because it would require that an American inventor seek to protect his process in every country throughout the world, at the pain of losing his process protection by skipping one country in which the process might be practiced to export the product of that process into the United States. Moreover, extremely difficult questions of proof and of law would be involved in respect of any country in which the process was not patented, because it would be necessary for Courts in the United States to determine whether patent protection for the process was available in that country.

For these reasons, the House of Delegates of the American Bar Association has adopted the following Resolution:

"Resolved, That the American Bar Association approves in principle: amendment of Title 35, U.S. Code Section 271(a), to provide that:

"except as otherwise provided in this Title, whoever without authority makes, uses or sells any patented invention within the United States or causes a product made abroad by process patented in the United States to be imported into the United States during the term of the patent therefore infringes the patent."

This unqualified protection of a patented process is in accordance with recommendation XXI of the President's Commission on the Patent System. The added restriction to that protection was not recommended by the Commission.

The apparent reason for that restriction was stated in the testimony of Mr. Donald Turner before this Subcommittee and was to the effect that without the qualification small importers would be faced with the costly task of determining whether the products they imported were made by some particular patented process, while such facts are not available in this country. In point of fact, it should be much easier for the importer to determine from his source, the details of the process used to produce the product, than for the aggrieved patent owner, whose market in the United States may be destroyed by importation of products made with less expensive foreign labor by the same process abroad. Also, the burden of proof to show infringement obviously would be upon the patentee, and not upon the small importer. That burden, and the difficulty of sustaining it, in most cases would generally make impractical a suit against small importers.

The efficacy of this added protection would generally be effective only in cases of blatant process infringement, as when the very nature of the product ensures

that it was made by the patented process, or when the defendant is importing to such an extent seriously to damage the patentee's market.

With respect to the showing of a need for this legislation, such a showing was made to the satisfaction of the Congress in 1940 when they added Section 1337 (a) to the Tariff Code, Title 19. Prior to that time, those who went abroad to avoid patent protection here were subject to actions under 19 U.S.C. 1337 on the ground of unfair competition. Such an action was successful in the *Northern Pigment* case, 71 F. 2d 447, involving Americans who left the employ of a licensee of the patent owner, to practice the process in Canada and export the product into this country, to the substantial diminution of the patentee's market here. However, in 1935, that decision was held to have been erroneous in the *Amtorg Trading Corporation* case, 75 F. 2d 826, on the ground that Section 1337 did not create rights in process patents extending to acts occurring outside of the United States.

Bills were then introduced both to amend the patent law and the tariff law to restore protection to a process patent owner by enabling him to prevent importation of a product made abroad by his process.

After consideration by the 75th and 76th Congresses, 19 U.S.C. 1337 (a) was enacted to provide this protection. By that section, the importation of a product made by a patented process was specifically described as the equivalent of importation of an article which itself was covered by a U.S. patent, for the purposes of Section 1337 of the Tariff Code. Unfortunately, Section 1337 has been largely ineffective, because of the difficulty of showing substantial injury to an industry which is efficiently and economically operated in the United States, as well as to show operation in accordance with a patent of the United States. Of the approximately 30 actions that have been instituted before the Tariff Commission under Section 1337 since about the time of passage of Section 1337 (a), only one finally resulted favorably to the American complainant.

Addition of the patent infringement cause of action proposed in S. 2597 does not enlarge the substance of the present Tariff Act, but is necessary in order to give an American patentee the effective remedy for infringement by importation of a product made abroad by a process patented here, which the Congress evidently intended when it enacted Section 1337 (a) of Title 19.

A significant number of foreign countries (including Great Britain, West Germany and the Scandinavian countries,) grant this right to their own nations, so that American exporters may well have this cause of action enforced against their customers abroad. It seems only in accord with the general reciprocal nature of our international patent agreements that American patent owners should have the same right against importers from foreign manufacturers.

REISSUE APPLICATIONS TO ENLARGE THE SCOPE OF THE CLAIMS OF THE ORIGINAL PATENT

Section 251 (c) of S. 1042 would absolutely foreclose the issuance of a reissued patent containing claims of scope greater than those of the original patent. Since the law currently is that any enlargement as to any element of the claim makes the claim a broadened claim, even though any other element is restricted in scope, the effect of this change from existing law would be to deprive patentees of the right to correct mistakes of their representatives which may result in issuance of a lesser amount of protection than the patentees are entitled to. The House of Delegates has opposed this drastic change in the following language:

"Resolved, That the American Bar Association opposes in principle prohibiting reissued patents with one or more claims broader than those in the original patent."

Section 251 (c) of S. 2597 as printed (subparagraph (d) as we propose it be amended) would retain the right to correct mistakes by obtaining enlarged reissues, though the right to apply for such reissues would be restricted to a period of one year from the date of the original grant, in place of the present two years, except when the purpose of reissue was to determine the priority with respect to an issued patent, under Section 137 of S. 2597. In that case, the period of course is six months.

PATENTEE ESTOPPEL

Section 294 (a) of S. 1042 would estop a patentee in any subsequent action involving his patent, if the patent had previously been held invalid in a federal court, or had there been given an interpretation limiting the scope of any claim. This estoppel would apply, even though the defendant in whose favor the estoppel

was to be asserted was not a party to the prior litigation, or in privity with any party. Except for one notorious case, which might have been controlled by the Courts, there is no indication of need for this restrictive provision.

The House of Delegates has adopted the following resolution with respect to this change in the law:

"Resolved, That the American Bar Association opposes in principle legislation which would create an estoppel against the patentee, and those in privity with them, arising out of an adjudication limiting the scope of any patent claims or holding them invalid."

The rigid and unqualified application of the doctrine of estoppel against a patentee whose claims had either been held invalid or limited in scope would deprive the patentee of the right he has under existing law to correct manifest errors made by a Court in one Circuit, by suit against an infringer in another Circuit. Moreover, the way in which a patent claim is limited by one court is necessarily dependent upon the nature of the alleged infringement, as well as the nature of the prior art relied upon by the infringer in that court. It is quite possible that a court might hold a claim to be limited to the subject matter of the alleged infringement, and so find infringement. However, in another action against a different infringer, the accused infringing article might well be different from the article found to infringe in the first court. Certainly, the mere fact of that difference, without more, should not require the second court to find no infringement with respect to that different article.

The argument that a patentee, having had his "day in court", should not be allowed to harrass anyone else by suing for infringement on a claim previously held invalid is not supported by evidence that the right to bring a second suit is being abused. Where a second suit is not warranted, the doctrine of "collateral estoppel" has been effective in our federal courts in other types of litigation. That doctrine was recently extended to patent litigation by Judge Steele of the District Court for the District of Delaware, in the case of *Nickerson v. Pep Boys—Manny, Moe and Jack*, 247 F. Supp. 221 (1965). The legislation of a rigid doctrine of estoppel, applicable in all cases, is undesirable because it would not permit the courts to vary their decisions as to application of the estoppel, depending on the circumstances. It would of course foreclose the development of this theory in the case law.

A cursory survey of patent cases in the Circuit Courts of Appeals between 1953 and 1967 reveals that seventeen patents were adjudicated in more than one suit, at the appellate level. Of the seventeen, the patent was held invalid by the first court in eight cases, and two of the eight were held valid in the second court. (In the other nine cases the first court found the patent valid.)

Considering the cases in this survey, the estoppel would appear to have properly been applicable in no more than six cases over the last fourteen years. Such statistics do not indicate an abuse justifying enactment of a rigid statute that evidently would work a hardship in some circumstances.

It is believed that the legislative enactment of this equitable remedy of estoppel is both unnecessary and undesirable.

CIVIL COMMISSIONERS FOR PATENT CASES

Section 3(a) of S. 1042 would amend Title 28 of the United States Code by adding a new Section 757, providing for appointment by the court of civil commissioners for regulation of the conduct of discovery proceedings in patent cases, and to preside over oral examinations for discovery, etc.

The House of Delegates has adopted the following resolution:

"Resolved, That the American Bar Association opposes in principle the creation of the office of Civil Commissioner in patent cases."

The reason for our opposition to this proposal is in part grounded on its impracticality and in part on its undesirable separation of patent infringement litigation from other types of litigation in providing for appointment of Commissioners only for patent litigation.

Concerning the impracticality of the measure, it should be evident that a very large number of commissioners would be necessary in major centers of patent infringement litigation, such as Chicago, New York and Los Angeles, if discovery depositions were to go forward as they do presently. It has been estimated that on any given day in any one of these cities some ten to twenty patent discovery depositions may be going on. Obviously, it would be impractical to appoint sufficient civil commissioners to provide one for each one of these depositions.

On the other hand, it would seriously inconvenience the parties and their counsel if depositions could only be scheduled when civil commissioners became available.

Turning to the undesirability of segregating patent infringement litigation from other types of actions, it is noteworthy that it has taken many, many years to consolidate admiralty proceedings with other types of federal litigation, and this consolidation has only recently taken place by adoption in 1966 of the changes in the Federal Rules of Civil Procedure. These efforts to achieve conformity would be materially adversely affected, if patent cases were specifically dealt with differently from all other types of litigation, by the provision of civil commissioners to deal with motions, depositions and the like. If there is need for this added office and added expense, it would seem that the need must be more general than merely in the patent area. Accordingly, it should be considered separately for its application to all types of protracted litigation, rather than merely for application to patent cases.

REFUSAL TO RIGHT OF PRIORITY FOR CERTAIN CONTINUATION APPLICATIONS

Section 120(b) (3) of S. 1042 would change existing law by eliminating an applicant's right to claim priority as to a preceding co-pending application, if an appeal in the preceding application had been filed, before the later application was placed on file. The House of Delegates has adopted the following resolution pertinent to this provision:

"Resolved, That the American Bar Association opposes in principle refusing the right to priority to a continuation application filed after the filing of a notice of appeal to the Board of Appeals in the original parent application."

The apparent reason for this change in the law which is proposed in S. 1042, is to foreclose an applicant from extending the period of time in which his invention is before the Patent Office, by restricting the filing of continuation applications. While this objective in general may be desirable, in particular circumstances it may be necessary to make use of the option of filing a continuation application, even after appeal to the Board of Appeals. The number of occasions in which this will arise will be considerably reduced by adoption of a patent term measured from the filing date, as proposed by both S. 1042 and S. 2597. With this new term provision in the law, there will be considerable incentive to an applicant to issue his patent as quickly as possible, so that his patent term will be as long as possible. Nevertheless, if circumstances are such as to make necessary the filing of a continuation application after appeal, the applicant will be the loser, because he will be giving up more of his term by the delay in issuance of his patent. Consequently, he will not file continuation applications in such cases, except in unusual circumstances.

The change that would be made in the law by Section 120(b) (3) of S. 1042 in this respect, is both undesirable and unnecessary.

ELIMINATION OF "DOUBLE PATENTING," UNDER LIMITED CIRCUMSTANCES

The "double patenting" ground of rejection, or ground of holding of invalidity, is one of the most artificial points of the patent law. It generally is based on the ground that a second patent extends or enlarges the monopoly, so only one patent should issue for one invention. As a practical matter, the problem never arises as to identical subject matter, but rather only when different subject matter is involved and the nature of the differences is such that someone may consider them obvious. It is very difficult in many situations for an attorney to determine whether only a single invention, or a plurality of inventions are involved. In such cases, more than one application may be filed, as a result of an honest determination by an attorney that the subject matter claimed in one application is patentably distinct from the subject matter claimed in another application.

If either the Patent Office, or the courts in later litigation, decide that the attorney was wrong in his decision, the inventor or patentee is without recourse. This unfortunate result is sometimes justified on the ground that to grant more than one patent for the same invention (or for subject matter not patentably different from the first invention), would be to extend the period of protection for the invention, to the detriment of the public.

The remedy of "terminal disclaimer" was designed, in part at least, to avoid this legitimate objection to the issuance of a plurality of patents on the same or

very similar inventions. When a terminal disclaimer is filed, or when the patents issue on the same date, clearly there is no disadvantage to the public in the issuance of more than a single patent, so long as all of the involved patents remain under the control of a single legal entity.

Section 131 and Section 282(b) (2) of S. 2597 would amend the Patent Code to provide for elimination of "double patenting" when these circumstances apply. The House of Delegates has adopted the following resolution:

"Resolved, That the American Bar Association approves in principle elimination of "double patenting" as a basis for refusing issuance of a patent and as a basis for asserting invalidity of a patent in situations where the patents will expire on the same date as a result of issuing on the same date or as a result of a terminal disclaimer, provided that the right to sue for infringement of all said patents is maintained in the same legal entity."

This doctrine that expiration on the same date should overcome possible holdings of "double patenting," has been developing over the past several years by decisions of the Court of Customs and Patent Appeals. It appears that Section 253(c) of S. 1042 is designed to overrule these decisions of the CCPA, by providing that the fact of expiration of patent protection on the same date should have no effect in determination of patentability or validity.

We believe this change in the law in S. 1042 would not be in the public interest and that a converse change to make this doctrine statutory in nature would be in the public interest. It certainly would make it possible to avoid such untoward results of patent litigation as the one decided by the Third Circuit Court of Appeals some ten years ago in which a basic patent was held not to be infringed and the improvement patent, though infringed, was held to be invalid for "double patenting" over the first patent. The patentee in that action evidently did not receive the benefit his patent grants were intended to give him. If it were possible to prevent this kind of artificial holding from occurring, by application of terminal disclaimer or other mechanism to cause expiration on the same date, the public would not be harmed and patentees would be given their just measure of protection.

Enactment of sections 131 and 282(b) (2) of S. 2597 will avoid waste of time, effort and expense in the Patent Office and in the courts, by eliminating the technical rejection and defense of "double patenting," where the patent owner has taken steps to avoid enlargement and extension of the patent monopoly. Moreover, any misuse of either or both patents will still render the patents unenforceable, so there is no encroachment upon the public interest. fixed by statute. Section 41 of S. 1042 would change this by giving the Commis-

PATENT OFFICE FEES

Under present law, all of the significant fees charged by the Patent Office are sioner the right to fix fees. This right would be limited only by the requirement that the amounts of the fees be such as to effect an overall recovery in the range of 65 to 75 percent of the cost of operation of the Patent Office.

The ABA House of Delegates has adopted the following resolution:

"Resolved, That the American Bar Association opposes in principle the grant to the Commissioner of a right to fix fees to be paid in connection with the filing, examination, and issuance of patents, and records relating thereto designed to effect an over-all recovery of a predetermined percentage of the cost of operation of the Patent Office."

This Committee will recall the recent controversy over the Commissioner's proposal that periodic fees be charged for maintaining issued patents in force. That controversy was resolved by the Congress deciding not to enact such fees. In our view the Commissioner should not be given the right to promulgate that class of fees.

The right to fix patent fees should remain where it always has resided—in the Congress.

CONCLUSION

Through Mr. Fulwider's testimony last May, and this statement, we have treated positions adopted by the American Bar Association which are believed relevant to S. 1042 and the various other bills pending before the Subcommittee. While S. 2597 was not itself approved by the entire American Bar Association, it is in full accordance with the principles adopted by the Association. Moreover, the Patent, Trademark and Copyright Section of the American Bar Association

has approved S. 2597, as it would be amended in accordance with our suggestions, as one desirable expression of the principles adopted by the entire Association. We believe that S. 2597 is a positive approach to the problems now faced by the American patent system, and to the objectives of the President's Commission on the patent system. Indeed, it is our view that each of the six objectives listed in the report of the President's Commission would be better achieved by enactment of S. 2597 or similar legislation, than by enactment of S. 1042. Accordingly, we recommend S. 2597 to the Subcommittee as a desirable improvement in our patent system.

We recognize that further improvements may be effected in this and any other bill. We pledge our continued examination into all such possible improvements which we generate and which are suggested to us by others.

We appreciate very much the privilege of appearing before you to express the views of the American Bar Association, and we will gladly cooperate with the Committee and its staff, if we can assist in any way to improve the proposed patent legislation.

APPENDIX TO STATEMENT OF EDWARD F. MCKIE, JR.

SIGNIFICANCE OF HONOLULU AMENDMENTS TO S. 2597 (DIRKSEN) AND H.R. 13951 (POFF)

Section 100. Definitions

A definition of the term "actual filing date in the United States" is inserted, to insure that the effective date as a reference of a published United States patent application for U.S. patent will be the first date of filing in the United States to which that application or patent is entitled, rather than merely the filing date of the particular published application or patent being considered as a reference. Section 100(g)

Also, to avoid the possibility of misinterpretation, an additional definition of a category of "prior art" is added, to insure that both derivation under Section 102(d) and prior invention under Section 102(e) are considered as parts of the prior art over which the invention in question must be patentable, under Section 103. Section 100(i) (5)

Finally, the definition of prior art is amended to correspond to existing law in respect of subject matter "on sale", rather than subject matter "sold". Section 100(i) (4)

Section 107. Abandonment of invention

The amendment of this section is to make certain that publication of an application under other provisions of the bill would not raise any inference of abandonment of the invention of that application, so as possibly to permit someone else to obtain a patent on the same invention, even though the other inventor made his invention later in time than the person whose application was published.

Section 131. Examination of application

The amendment is to insure that the Commissioner may have some flexibility in the order of examination of applications, but only under circumstances defined by regulation.

Section 137. Priority of invention

The modification of the term "applications" by the term "pending" is to insure that a priority proceeding under Section 137 can be instituted only at the instance of an applicant who has an application actually pending before the Patent Office.

The additional statement added to Section 137(a) is to effect cancellation of claims from an issued patent in the event it is determined that someone else is the prior inventor, in a priority proceeding.

Section 141. Appeal to CCPA

The amendment to sub-paragraph (a) is to remove an unnecessary phrase, since the term "applicant" is defined by Section 100 to include his successor in title.

The change to sub-paragraph (b), in addition to excising the unnecessary phrase referred to in connection with sub-paragraph (a), also gives to the patentee a right of appeal, in the event a priority proceeding under Section 136 or 137 is decided adversely to the patentee by the Board of Appeals.

Section 184. Filing of application in foreign country

There is no change in substance. The amendment is to state in a separate paragraph the authority of the Patent Office, as the sole government agency to grant a license for foreign filing.

Section 251. Reissue of defective patents

The addition of the paragraph labelled "(b)" is to place in the bill provision for separate reissues for distinct parts of the subject matter of the original patent. There is a desirable provision in existing law for this authority, which should be continued.

The amendment to what was sub-paragraph (b) now sub-paragraph (c) is to correct an oversight in the bill and insure that all of the chapters of Title 35 applicable to applications for patent be applied also to applications for reissue of a patent so as to avoid the possibility of misinterpretation.

Section 271. Infringement of patents

The amendments are to remove unnecessary references to "contributory" infringement and thereby eliminate slight ambiguities in the existing statute. Contributory infringement and inducement are now treated the same as direct infringement.

Section 284. Damages

The amendment proposed for sub-paragraph (a) is intended to retain existing law, rather than to go back to the law prior to the Act of 1952, which made the infringer's profits a measure of damages. The pre-1952 version of this section was very complicated in administration, and caused needlessly protracted litigation.

The amendment to sub-paragraph (b) is intended to remove the unnecessary requirement that a patentee describe how an infringer's acts are considered to infringe his patent, before his right to damages may arise. Sufficient notice to the infringer is provided if the patentee merely describes "what" acts of the infringer are considered to infringe the patent.

Section 291. Interfering patents

This section is in existing law and should be continued because it is possible that the Patent Office may by mistake or otherwise issue two patents for substantially the same invention. This section allows the patentees to resolve the question of interference between their patents, in appropriate court proceedings.

Section 4. Effective date

The addition of new sub-paragraph (d) is necessary because of the change in the jurisdictional Section 1542, for the CCPA. As to applications not governed by the new Act, the jurisdiction of the CCPA should remain as it existed prior to this bill, and this sub-paragraph will so insure.

Miscellaneous

There are a very few other modifications of a minor editorial nature. They are believed to be self-explanatory.

Senator McCLELLAN. At the request of Senator Dirksen, author of S. 2597, I place in the record his statement.

(The statement referred to follows:)

STATEMENT OF SENATOR EVERETT M. DIRKSEN, BEFORE THE SUBCOMMITTEE ON PATENTS, TRADEMARKS, AND COPYRIGHTS, COMMITTEE ON THE JUDICIARY, U.S. SENATE, JANUARY 30, 1968

(Concerning S. 1042 and S. 2597)

My remarks on the floor of the Senate at the time of introducing S. 2597 emphasized many of the salient points of my bill for general revision of the patent laws. Rather than repeat the substance of that statement, a copy is attached which may be printed as a part of these hearings, should the subcommittee wish to do so.

Since preparation of the draft upon which S. 2597 is based, the Section of Patent, Trademark and Copyright Law of the American Bar Association, as a part of its continuing effort to improve proposed patent legislation, has suggested changes appearing on a list attached hereto. I commend these changes for consideration by the subcommittee. Most of the changes are to clarify language of the bill; others are to include certain desirable provisions of the present statute.

In a speech last week, Assistant Secretary of Commerce John F. Kincaid announced substantial changes in the position of the Administration on vital provisions of pending legislation. Additional changes expressed by the Department of Commerce in a letter to Senator Eastland reduce the differences between S. 1042 and S. 2597.

I believe the committee has been supplied with a tabular comparison of more than sixty items included in the several pending bills, the existing law, and the recommendations of the President's Commission. In about forty-five of those items S. 2597 is either identical to or differs in only minor respects from the present position of the Administration. Amendments to S. 1042 proposed by Senator Long eliminate still more differences between S. 1042 and S. 2597. In most instances of differences remaining between these two bills, S. 2597 continues the substance of the present status because changes are unnecessary to achieve desired objectives.

One change recommended by almost everyone is to permit the owner of an invention to apply for a patent without first obtaining the signature of an inventor. Most countries follow this practice and S. 2597 provides for it. Even though the Administration urges international cooperation as a basis for other changes, S. 1042 continues to require the signature of the inventor before publication of the application. S. 1042 does not simplify the procedure at all; it merely enlarges the time within which to comply with the cumbersome procedure of the present law. To protect the inventor's rights, section 111(c) of S. 2597 requires the owner to serve a copy of the application on the inventor within ten days after filing.

One of the more controversial provisions of S. 1042 is section 204 introducing for the first time a statutory estoppel against a patentee after a court has held a claim of a patent invalid. This is an effort to codify the equitable doctrine of collateral estoppel presently applied by the courts where it is warranted by the facts of a particular case. Arbitrary application of an equitable doctrine in every case can only result in hardship in some cases. For example, where a patent is held valid by a first court and invalid by a second, S. 1042 would preclude a third suit. Thus, a holding of invalidity due to the facts and circumstances of a particular case would apply to all subsequent litigation involving the same patent even though the same facts and circumstances may not exist. Our courts are quite capable of invoking the doctrine of collateral estoppel where necessary and proper. We should not arbitrarily impose the doctrine upon every case and leave nothing to the discretion of the courts.

Even though the substance of our patent laws has not been changed materially in over a hundred years, it continues to serve our nation well as evidenced by the industrial and technological gap we enjoy over other nations. While revision and reform of the patent statute is necessary in order to renovate our patent laws, we must be careful not to go too far lest we destroy, rather than enhance, the incentives of the patent system. S. 2597 implements many recommendations of the President's Commission but does not include all of the changes of S. 1042. If the Congress enacts S. 2597 and experience indicates further reform is desirable, the Congress may then enact additional provisions of S. 1042. On the other hand, enactment of all of the provisions of S. 1042 will be an irrevocable action and any resulting damage to the patent system will be irreparable.

For these reasons, among others, I strongly recommend that this subcommittee take the shorter step of recommending enactment of S. 2597.

[From the Congressional Record, Oct. 30, 1967]

PROMOTION OF THE PROGRESS OF THE USEFUL ARTS BY THE GENERAL REVISION OF THE PATENT LAWS

MR. DIRKSEN. Mr. President, I introduce, for appropriate reference, a bill for the promotion of the progress of the useful arts by the general revision of the patent laws—that is title 35 of the United States Code—and for other purposes.

This bill updates and renovates our patent laws while preserving essential features of the U.S. patent system which provide incentives to individuals and to businesses, large and small, to promote the progress of the useful arts. Underlying our patent system is the equitable principle that a patent should be granted to the person who first makes the invention as distinguished from the expedient used in most foreign countries of granting the patent to the first person who files an application. A second, and interrelated, feature of the U.S. patent system

is the period of 1 year which is accorded an inventor to apply for a patent after public use or publication of the invention. Together, these two unique features of the U.S. patent system permit and encourage many desirable activities to take place before filing the patent application, including:

- First. Inventors may exchange information with others;
- Second. Inventions may be published;
- Third. Development of inventions may be completed;
- Fourth. Inventors may obtain advice on technical, marketing, and other problems;
- Fifth. The invention may be publicly tested;
- Sixth. The invention may be exploited commercially; and
- Seventh. Patent applications may be carefully and completely prepared for those inventions which are considered worth while.

Unlike most foreign countries, the vast majority of the patents issued in the United States are issued to citizens of this country, and it is the interests of our citizens which are paramount in any consideration of revision of the patent laws.

This bill preserves the unique features of the American patent system which enable individuals and small businesses to compete with international industrial giants in developing and exploiting inventions according to the basic American tradition of free enterprise. At the same time, this bill revises the patent laws in a manner to improve and strengthen the U.S. patent system.

To improve the quality and reliability of patents, this bill eliminates some of the uncertainties concerning patents by defining more precisely the "prior art" against which the patentability of an invention must be measured. Also, before a patent is issued, any interested person may present evidence affecting the patentability of the invention, thereby reducing the possibility that a patent may subsequently be found to be invalid. Uniform interpretation of the standards of patentability will result from the consolidation of all review of Patent Office decisions in the Court of Customs and Patent Appeals.

Many provisions of this bill streamline rigid and technical requirements of the present law to reduce the time and expense of issuing patents. So the Patent Office may more expeditiously ascertain the "prior art" pertinent to an application for patent, this bill provides for a research program to improve and expedite storage and retrieval of patents and other scientific and technical information. Strict provisions of the present statute are relaxed to permit owners, as well as inventors, to file applications. Provisions concerning joint inventors have been liberalized. Signatory requirement for certain related applications are eliminated.

Computation of the term of a patent from its filing date rather than its issue date will encourage applicants to act promptly; and dilatory practice by an applicant will, in effect, curtail the life of the patent. Interferences between pending patent applications are eliminated, as are civil actions based upon Patent Office decisions in inter partes cases. Unnecessary examination of many applications will be avoided by provision for voluntary publication and abandonment of applications without loss of effective filing dates or other rights.

In *Sperry v. State of Florida*, 373 U.S. 388, 83 S. Ct. 1322 (1963), the Supreme Court reiterated its earlier holding that the preparation and prosecution of patent applications before the Patent Office involves the practice of law in its most intricate and complex sense. But the Court also found that the Congress, by the present patent statute, has authorized nonlawyers to engage in such legal practice before the Patent Office, so the States cannot interfere with what would otherwise be the unauthorized practice of law. To correct this undesirable situation, this bill will limit practice before the Patent Office to members of the bar, with appropriate safeguards for nonlawyers who have already been admitted to practice before the Patent Office.

Without affecting the security of the United States in any way, some rigid requirements with respect to licenses for filing in foreign countries have been relaxed and provisions for granting retroactive licenses liberalized; courts are given the power to grant retroactive licenses or declare patents invalid for failure to comply with the licensing provisions.

To avoid different interpretations by a variety of courts of the application of antitrust laws to the use of patent property, this bill defines certain activities in which a patent owner may engage without jeopardizing his patent rights. Provision is made for preventing the importation of products made abroad by a process patented in the United States and for recovery of damages for unauthorized use of an invention after the patent application is published. Uncer-

tainties resulting from the issuance of two or more patents on related inventions can be eliminated where the patents expire on the same date rather than risk the present inequitable situation where both patents may be held invalid.

In conjunction with the enlargement of the jurisdiction of the Court of Customs and Patent Appeals, provision is made for the employment of additional judges, at least some of whom are to be qualified in patent law. Such appointments will provide a nucleus of experienced patent judges who will be available, upon request, to assist other courts in handling the heavy load of complex and frequently protracted patent cases. Rather than propose legislation especially applicable to the trial of patent cases, it is believed the time and expense necessary for the trial of patent cases will likely be reduced as a result of the continuing review and revision of the Federal Rules of Civil Procedure and the continuing development of pretrial techniques in the Federal courts.

In summary, this bill is offered as a compromise between S. 1042 and S. 1691 of the 90th Congress, because it modernizes our patent laws without destroying the proven principles upon which the U.S. patent system is based solely for the sake of international standardization of inferior patent systems used in other countries.

Mr. President, this is a very considerable revision of our patent code. It has the approval of the American Bar Association, and, very particularly, the patent section of the association. I think it would be in the public interest if the bill were set out in full in the Record, because lawyers all over the country will be saved the trouble of sending to the document room for a copy, when it is available in the Record in their local libraries. I ask unanimous consent, therefore, that the bill be printed in the Record.

ADDENDUM TO S. 2597

Section 100. Definitions (pp. 10-11)

Commencing with subsection (g), the balance of the section should be changed to read as follows:

"(g) The term 'actual filing date in the United States' means the earliest date of filing of an application in the United States to which an applicant is entitled.

"(h) The term 'useful' shall include, but shall not be limited to, utility in agriculture, commerce, industry, health, or research.

"(i) The term 'prior art' means:

"(1) A published United States patent application or United States patent of another which has an actual filing date in the United States before the invention by the inventor named in the applicant's application; or

"(2) Subject matter known or used by others in this country before the invention by the inventor named in the applicant's application; or

"(3) A patent or publication in this or a foreign country reasonably available before the invention by the inventor named in the applicant's application, or more than one year prior to the effective filing date of the application for patent in the United States; or

"(4) Subject matter on sale or in public use in this country more than one year prior to the effective filing date of the application for patent in the United States; or

"(5) Subject matter for which the applicant has no right to secure a patent because the inventor named in the application did not himself invent it or because before his invention thereof, the invention was made in this country by another who had not abandoned, suppressed or concealed it."

* * * * *

Section 107. Abandonment of invention (p. 12)

Subsection (b) should be changed to read as follows:

"(b) Publication of an application under the provisions of section 123 or 151 of this title negates any inference that an invention disclosed therein was abandoned within the meaning of section 102(e), 126 or 137 of this title."

* * * * *

Section 119. Benefit of earlier filing date in foreign country; right of priority (p. 15)

In line 31, delete "by the same inventor".

* * * * *

Section 120. Benefit of earlier filing date in the United States (p. 16)

In subsection (b), line 30, after "prior" insert "copending".

* * * * *

Section 131. Examination of application (p. 17)

At the end of the section (line 31) change the period to a comma and add "except that applications may be examined out of turn under special circumstances established by the Commissioner by regulation."

* * * * *

Section 136. Reexamination after publication (pp. 18-19)

In subsection (d) (1) [page 19, line 1] change "sold" to "on sale".

* * * * *

Section 137. Priority of invention (pp. 19-20)

In subsection (a), page 19, line 1, after "allowable" insert "pending"; line 34, after "said" insert "pending".

At the end of subsection (a), page 19, add "A final judgment adverse to a patentee from which no appeal has been or can be taken shall constitute cancellation of the claims involved from the patent and notice thereof shall be endorsed on copies of the patent thereafter distributed by the Patent Office."

* * * * *

Section 141. Appeal to Court of Customs and Patent Appeals (p. 20)

In subsection (a), line 1, delete "or his successor in title,".

In subsection (b), line 11, delete ", or his successor in title," and substitute therefor "or patentee,".

* * * * *

Section 184. Filing of application in foreign country (pp. 26-27)

Revise entire section to read as follows:

"(a) Except when authorized by a license obtained from, or a general license established by, the Commissioner, a person shall not file or cause or authorize to be filed in any foreign country an application for patent or for the registration of a utility model, industrial design or model in respect of an invention made in this country, prior to six months after filing an application for patent on the same invention under section 111 of this title, or prior to four months after filing an application for patent on the same ornamental design under section 171 of this title. A license shall not be granted with respect to an invention subject to an order issued by the Commissioner pursuant to section 181 of this title without the concurrence of the heads of the departments and the chief officers of the agencies who caused the order to be issued. Upon compliance with regulations established by the Commissioner, a license shall be granted retroactively where an application has been filed abroad and the application does not disclose an invention within the scope of section 181 of this title.

"(b) The Patent Office is hereby established as the sole governmental agency to grant a license or establish a general license.

"(c) The term 'application' when used in this Chapter includes applications and any modifications, amendments, or supplements thereto, or divisions thereof.

"(d) No license shall be required, subsequent to the filing of a foreign application, for any modifications, amendments or supplements to that foreign application, or divisions thereof, which do not alter the nature of the invention originally disclosed, which are within the scope of the invention originally disclosed, and where the filing of the foreign application originally complied with the provisions of this section.

"(e) A retroactive license may be granted at any time notwithstanding the fact that a corresponding United States application has matured into a patent. Such license shall have the same force and effect as if granted during the pendency of the application."

* * * * *

Section 251. Reissue of defective patents (pp. 28-29)

Revise entire section to read as follows:

"(a) Whenever any patent is, through error without any deceptive intention, deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent, the Commissioner shall, on the surrender of such patent and the payment of the fee required by law, reissue the patent for the

invention disclosed in the original patent, and in accordance with a new and amended application, for the unexpired part of the term of the original patent. No new matter shall be introduced into the application for reissue.

"(b) The Commissioner may issue several reissued patents for distinct and separate parts of the thing patented, upon demand of the applicant, and upon payment of the required fee for a reissue of each of such reissued patents.

"(c) The provisions of this title relating to applications for patent shall be applicable to applications for reissue of a patent.

"(d) No reissued patent shall be granted enlarging the scope of the claims of the original patent, unless applied for within one year from the grant of the original patent, except to claim the same subject matter as a claim of an issued patent pursuant to section 137 of this title."

* * * * *

Section 271. Infringement of patent (pp. 32-33)

Revise entire section to read as follows:

"(a) Except as otherwise provided in this title, whoever, without authority makes, uses or sells any patented invention, within the United States during the term of the patent therefor, infringes the patent.

"(b) Whoever, without authority of the patentee, imports into the United States a product made in another country by a process patented in the United States shall be liable as an infringer.

"(c) Whoever actively induces infringement of a patent shall be liable as an infringer.

"(d) Whoever sells a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted, for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as an infringer.

"(e) No patent owner otherwise entitled to relief for infringement of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having done one or more of the following: (1) derived revenue from acts which if performed by another without his consent would constitute infringement of the patent; (2) licensed or authorized another to perform acts which if performed without his consent would constitute infringement of the patent; (3) sought to enforce his patent rights against infringement.

"(f) Whoever, during the interim period after publication of an application and before grant of a patent, performs an act which would make him liable for infringement of a valid claim of the patent shall be liable as an infringer if a like claim appears in the application for the patents."

* * * * *

In the section table of contents under "Chapter 29.—Remedies for Infringement of Patent and Other Actions", page 33, insert between "290" and "292" the following: "291. Interfering patents."

* * * * *

Section 284. Damages (pp. 34-35)

In subsection (a), page 34, lines 39-40, delete "less than the infringer's profits attributable to the infringement, or".

In subsection (a), page 35, line 1, delete "whichever shall be greater,".

In subsection (b), page 35, line 5, delete "how his" and substitute therefor "what".

* * * * *

Page 36, after line 33, add a new section as follows:
 "Section 291. Interfering Patents

"(a) The owner of an interfering patent may have relief against the owner of another by civil action, and the court may adjudge the question of the validity of any of the interfering patents, in whole or in part. A final judgment adverse to a patentee from which no appeal or other review has been or can be taken or had shall constitute cancellation of the claims involved from the patent, and notice thereof shall be endorsed on copies of the patent thereafter distributed by the Patent Office.

"(b) A civil action under subsection (a) may be instituted against the party in interest as shown by the records of the Patent Office, but any party in interest

may become a party to the action. If there be adverse parties residing in a plurality of districts not embraced within the same state, or an adverse party residing in a foreign country, the United States District Court for the District of Columbia shall have jurisdiction and may issue summons against the adverse parties directed to the marshal of any district in which the adverse party resides. Summons against adverse parties residing in foreign countries may be served by publication or otherwise as the court directs. The Commissioner shall not be a necessary party but he shall be notified of the filing of the civil action by the clerk of the court in which it is filed and shall have the right to intervene."

* * * * *

Section 4. (p. 42)

Delete subsection (d) and substitute therefor the following:

"(d) For purposes of considering appeals involving applications specified in subsections (b) and (c) of this section, the jurisdiction of the Court of Customs and Patent Appeals shall be governed by the provisions of section 1542 of title 28, United States Code, in effect immediately prior to the effective date of this Act.

"(e) The amendment of title 35, United States Code, by this Act, shall not affect any rights or liabilities existing under title 35 in effect immediately prior to the effective date of this Act."

Senator McCLELLAN. Thank you very much, gentlemen.

We have four other witnesses scheduled today. We will hear them this afternoon. I may have to be on the floor this afternoon, in order to proceed expeditiously with the work we have scheduled today, the Chair is going to recess until 1:30. That is a little earlier than usual but I am hoping we can move along and finish early this afternoon.

(Whereupon, at 12:15 p.m. the subcommittee recessed to reconvene at 1:30 p.m. of the same day.)

AFTERNOON SESSION

Senator McCLELLAN. The committee will come to order.

Mr. George F. Metcalf, vice president of Martin Marietta Corp., speaking for the chamber of commerce, will be the first witness.

You have a prepared statement. Do you want to have it incorporated in the record in full and then highlight it?

STATEMENT OF GEORGE F. METCALF, VICE PRESIDENT, AEROSPACE GROUP, MARTIN MARIETTA CORP., ON BEHALF OF THE CHAMBER OF COMMERCE OF THE UNITED STATES; ACCOMPANIED BY E. W. ADAMS, JR., PATENT ATTORNEY, DIRECTOR, BELL TELEPHONE LABORATORIES, INC., HOLMDEL, N.J.

Mr. METCALF. I would like to do so and I plan just to highlight it, sir.

Senator McCLELLAN. Very well. It may be printed in the record in full.

You have someone with you. Will you identify him for the record please?

Mr. METCALF. Yes, I will, sir.

This is Mr. E. W. Adams, patent attorney of the Bell Telephone Laboratories, A.T. & T. He is a member of the patent advisory panel of the national chamber which has been working with us on this work.

Senator McCLELLAN. Very well. Proceed, Mr. Metcalf.

Mr. METCALF. I am appearing on behalf of the Chamber of Commerce of the United States, a national federation with an underlying

membership of more than 4,600,000 individuals and firms. During my entire professional career in the field of industrial research and engineering, I have had a continuing concern for patents. Before joining the Martin Co. in 1962, I was employed for 34 years with the General Electric Co. I am a director of the national chamber and served as chairman of the patent system advisory panel, which is composed of nine business executives and nine patent attorneys. I personally happen to be an engineer and not a lawyer.

We appreciate this opportunity to testify before the subcommittee and to discuss proposals which have been made to revise the patent laws of the United States.

The chamber supports many provisions of the bills before this subcommittee to revise U.S. patent laws and modernize patent practice. We favor such coordinated changes as will demonstrably raise the quality and reliability of patents, hasten the disclosure of new technology, and reduce the time and expense of obtaining and enforcing patents.

We agree that some modification of the present system is desirable. Our position in general, however, is that the administration bill (S. 1042) is too drastic and will not necessarily bring about change for the better. Another comprehensive bill (S. 2597), while preserving many features of the present patent law, includes worthwhile changes which would enable the patent system to better meet the challenge of an expanding technological era.

I shall take up these bills in detail later in our testimony, but first I would like to tell the subcommittee why the chamber is concerned with a viable patent system and how our position on patent revision was developed.

We have followed closely the work of the President's Commission on the Patent System, and our advisory panel studied its resulting report which was released in December of 1966. We have considered the views of numerous organizations and individuals and have noted their comments on the Commission's recommendations to the President.

We have studied S. 1942 which was introduced on request of the administration and other bills, especially S. 2597 with certain proposed amendments.

Recommendations of our patent advisory panel as to applicable principles were approved by the chamber's board of directors on June 30, 1967. This statement is based on the positions thus determined on specific features of the legislation.

Incidentally, the advisory panel was composed of 19 members, about half of whom are patent attorneys and half business executives engaged in technical and research activities. Practically every member participated in each phase of the panel's work.

While supporting the objectives stated by the President's Commission, the panel agreed that these objectives had not been fully met, either in the specific recommendations of the Commission or in the administration bill.

The chamber appreciates, as many responsible organizations and individuals also do, that some proposals go too far—are too much of a departure from present law—and that disadvantages may well outweigh advantages. It is evident that persons who are close to the implementation of patent law, both in obtaining and in protecting

patents, feel unwilling to support the administration proposal unless major objections are removed.

Considerable concern has been expressed that hasty action may be taken by the Congress to revise longstanding patent law, without thorough study and consideration of the consequences. We believe that detailed analysis is vitally needed, and that expert testimony must be brought to bear on major provisions of the bills. We would point for comparison to copyright law revision, legislation for which has been subject to patient and careful study by this subcommittee. As a basic approach, we would suggest that no change be adopted until its cost, both in dollars and in the impairment of valuable property rights, has been most carefully weighed.

Although a major objective of the legislation is said to be to "bring the U.S. patent system more closely into harmony with those of other nations," hasty action might easily produce more discord than harmony. The Congress would want to be certain, for example, whether some foreign practices are, as alleged, better than our present practices and that adoption would be a definite advantage to U.S. inventors and manufacturers. If, on the other hand, it is determined that our law is better, Congress should hold ours and urge other nations to take the necessary steps toward harmonization.

With these preliminary observations on the record, we now turn to a consideration of specific provisions of the pending bills.

FIRST TO FILE

The fundamental approach of the Commission's recommendations and of S. 1042 is a shift from a so-called first-to-invent to a first-to-file system for determining the award of a patent between contesting inventors. Proponents have asserted that this basic change is essential to the attainment of the several interrelated objectives identified by the Commission.

While there is no question that we do live in a period of "exploding technology," the underlying assumption of the Commission that the Patent Office faces an insoluble crisis and can no longer function in any meaningful way without such a complete reform of the existing patent law does not appear supported by the facts. Testimony thus far offered and the public statements of Department of Commerce and Patent Office officials on the whole suggest that the backlog problem, which is the basis for most attacks leveled against the existing patent system, is internal to the Patent Office and can be, and is being solved by approaches available within existing law.

Further, one may question whether the proposed shift to a new first-to-file system really attacks this backlog problem, since it is reported that all of the world's major patent offices, many of which do use the first-to-file system, are suffering from increasing backlogs which are in many cases more serious than those of the U.S. Patent Office.

We note that the rules governing interferences have been modified recently by the Patent Office with the objective of limiting the number of interferences declared. Such changes emphasize the fact that existing law normally results in the award of the patent to the first inventor to file—subject to the important right of the actual first inventor to contest priority in a specified set of circumstances.

S. 2597, also, provides for issuance of the patent to the first to file and preserves the opportunity for the first inventor to prove priority. We feel strongly that such a limited interference proceeding should be retained in order to avoid a race to the Patent Office, the filing of ill-prepared applications on untested inventions, and the installation of a system which favors the opportunist over the careful and cautious researcher.

It seems reasonable to us that this limited interference proceeding should be such that the burden of determining that a contest as to inventorship exists and of establishing a case for initiation of the proceeding should be on the second party to file, rather than on the Patent Office. In order to reduce the period of uncertainty as to the validity of issued patents, opportunity for such initiation should be restricted to those second to file parties whose applications were filed within a year following the filing date of the first to file party and were copending prior to the publication of the application of the first party.

Some provision should be made to protect the first party to file against the inadvertent issuance by the Patent Office of a patent to a later filing party. This could occur by reason of the fact that, as proposed in S. 1042, the Patent Office would not have the obligation to make interference searches. There is the further possibility that applications would not in every case be examined in the order of filing dates. In such circumstances, consideration should be given as to whether the senior applicant should be freed of the restrictions as to copendency and filing date.

EFFECT OF PRIOR INVENTION

We recognize the attractiveness of a system in which the factual situation that would permit a junior applicant to prevail in an interference should be equally effective both to defeat a charge of patent infringement brought by one who was not the true first inventor or to defeat the grant of a patent if brought forth during the citation period provided by either of the bills under comment. However, we find practical difficulties in this approach.

Defense of prior invention.—We do feel that prior invention should be an absolute defense, available to anyone charged with infringement. Although such a defense would be of use primarily to the first inventor, who for some reason decided not to seek patent protection, we favor its applicability on behalf of other defendants because of the basic belief that the public should not be forced to pay tribute to one who is not the first inventor but has, nevertheless, obtained a patent.

Citation of art.—On the other hand, citation during a citation period of prior invention, not evidenced by publication, public use or sale appears undesirable, because the nature of the proof would be such as to hinder the operation of the Patent Office in the prompt issue of patents. While it is relatively easy to evaluate proof in the form of documents or publicly recorded acts, private prior invention would require expert determinations by the Patent Office, which should more properly be made by a court in full inter partes procedures.

Citation of art, in our view, should thus be limited to patents, publications, and instances of documented public use or public sale which would of interest in connection with the issue of the patentabil-

ity of the claims in published applications. As now is the case, the applicant against whom such material is cited should have the opportunity of carrying the date of his invention back under a procedure such as that of rule 131 to avoid the effect of any such citation which does not constitute a statutory bar.

GRACE PERIOD

The grace period of 1 year after publication, public use or sale, now available to inventors who wish to evaluate or perfect their inventions prior to entering the Patent Office, is abolished by S. 1042 as inconsistent with the institution of a first-to-file system. No other reason is advanced for abolition of this concept. In view of our position regarding the preservation of limited interferences, we strongly favor retention of the grace period.

PRELIMINARY APPLICATION

The Commission, and presumably the drafters of S. 1042, have recognized the shortcoming of a first-to-file system without the equivalent of the modifications just enumerated. They have provided for a system of preliminary applications which would serve to establish, hopefully at little expense to the inventor, the facts of inventorship in such a way as to permit early publication of inventions and the elimination of the extensive recordkeeping and uncertainties now charged against current interference practice under the present law. Examination of section 120 of S. 1042, however, indicates that the preliminary application fails to meet their requirements.

A preliminary application, as defined, differs from the complete application under the present law in only two respects. First, it need not make ritual reference to a description of the drawings and, second, it need not include any claim defining the invention sought to be protected. It offers protection to its author, however, only to the extent that it clearly discloses the invention sought to be claimed in the later filing which perfects and completes the application.

In view of the fact that the Patent Office routinely accepts complete applications under the present practice, even though various formal requirements are not met and even though only a single claim not meeting all the formal requirements is presented, there would be little or no saving in the filing of a new kind of preliminary application. Either the inventor himself may prepare a complete application with little extra effort beyond that required for the proposed preliminary and take his chances as to its eventual adequacy, or he may make the investment, which will ultimately be required anyway, in the services of a patent attorney to assure that the preliminary application is adequate in the first place. Under these circumstances the suggested savings do not appear to be real.

We see no need for a preliminary application as proposed. Informal applications which meet the present requirements of section 122 would not necessarily require correction or perfection until the case is reached for examination. Then the applicant could decide whether to draft a full set of claims and formal drawings.

Such a procedure could be advantageous to the "small" inventor. It could be instituted without the necessary result of the proposal of

S. 1042 that examination of all applications be automatically deferred for 1 year.

ELIMINATION OF UNCERTAINTY

Three interrelated features of the administration bill are: the broadened definition of prior art, the automatic publication of pending applications, and the provision of an opportunity for the public to assist by the citation of art and in revocation proceedings to block the grant of patents with invalid claims. All of these features are directed to the goal of eliminating uncertainty as to the validity of issued patents.

Prior art

Prior art would be defined to include public knowledge, use and sale in foreign countries. While this would make more art potentially available, it introduces great uncertainty, since no means exists for readily establishing the existence of such art. Greater expense and greater uncertainty inevitably follow, when acts in foreign countries not reported by publication must be relied upon. In any legislation, prior art should be limited to those things considered under present law, rather than to the definition in section 102 of S. 1042.

Publication

The automatic publication of applications as proposed in S. 1042, instead of increasing the speed of dissemination of new technology, can only cause proliferation of untested ideas which can be inserted in the literature without the benefit of review or editing by anyone. The Patent Office should not become a publishing house for unevaluated speculations. At the same time, the existence of the threat of unexamined applications, as outlines for possible future infringement suits, appears greatly to increase the uncertainty facing one who would commercialize new technology.

It is recognized that the automatic publication of pending applications is required if third parties are to assist the Patent Office by citing art during the prosecution process; and such citation of art may be useful. It is recommended, therefore, that the advantages of citation of art be retained without the disadvantages of unverified publication of patent applications. This can be done by requiring publication only after examination and allowance. Publication at request of applicant, if included, should be accompanied by a fee sufficiently high to discourage use of the Patent Office as a publishing house.

STANDBY INSTITUTION OF DEFERRED EXAMINATION

The authority proposed to be given under sections 191-194 of S. 1042 should not be enacted at this time. We understand that the Patent Office does not desire this authority to institute a deferred examination procedure and, in fact, has stated it would not use it even if authorized. The concept of deferral raises serious questions and poses practical problems, none of which need to be faced at this time. Possible savings of the direct costs within the Patent Office must be balanced against likely and substantial increases in cost to the users of the patent system, in the event that deferred examination is adopted.

OTHER CHANGES

In addition to the major provisions of S. 1042 which we have discussed, several other features are significant and deserve careful consideration.

Section 15 establishes an Advisory Council on the patent system, reporting to the Secretary of Commerce on how the system is serving the public interest. The Council could recommend further ways to improve the quality of U.S. patents. We support the idea of an Advisory Council and the appointment of civilian members, but we oppose any publication by such a Council or the Patent Office of patent quality ratings. Directing attention to improved search and examination, rather than using round-about methods such as general publication, is more likely to upgrade patent quality.

Section 41 of S. 1042 authorizes the Patent Office, rather than the Congress, to determine patent fees, based upon a desired rate of recovery specified by Congress. Our members oppose this proposed delegation of fee-making authority to the Commissioner of Patents. Congress should retain such authority, not only over the types of payments required but also as to the amounts. We would oppose, for example, the imposition of patent maintenance fees.

Section 106 of S. 1042 declares categorically that computer programs shall not be patentable. We believe this provision is a too drastic and quick answer to a new and perplexing problem for the Patent Office. Further study should be given to alternative solutions for determining what is and what is not patentable in the field of computer software, instead of immediately removing a vast new body of technology from patent consideration. The final determination should be fair to all concerned, manufacturers of machinery, developers of programs, and users of programmed equipment.

From the President's Commission report, it is clear that this section is directed in large part to difficulties within the Patent Office in handling a new technology (e.g. classification, search files). If the Patent Office is to be the servant of the patent system, the more appropriate solution is to generate the needed files and expertise within the office and not to legislate a troublesome area out of the patent system. Industry is learning to cope with programs and related subject matter—so can the Patent Office.

It should be noted that even if some defined area of computer programming technology were to be made "nonstatutory," the Patent Office would still have the burden of classifying and searching the computer programming literature because of the close interplay between the hardware and software technologies. Otherwise, either patents in hardware technology would have to be issued without a complete search, or, hardware would have to be made nonstatutory also.

Furthermore, it is widely recognized that a major problem in this area—as in any new technology—is one of terms and definition. Any attempt now to define an excluded area is almost certain to result in creating not only confusion but also a substantially enlarged or diminished excluded area than intended, when an attempt is made 5 or 10 years hence to interpret the terms used now. Further, except with respect to a relatively narrow exclusion in the Atomic Energy Act, a legislative exclusion of a defined area of technology is without precedent.

The best way for the doubts and uncertainties noted by the Commission to be resolved is through gradual evolution in the courts where real questions based on real situations can be presented and considered in an adversary environment.

Economics alone argues for strong rather than weak patent protection. The investment in data processing in the United States is growing at a rapid rate. Ten years ago, the investment mix in this software and hardware was heavily on the hardware side. Currently, it is roughly balanced, but it is estimated that by 1970 more than 70 per cent of the investment will be in software.

The patent system—and, of course, the Patent Office—has grown to embrace many complex and esoteric technologies far beyond the realm of the imagination of its founders. Given a chance, it can embrace computer programming as well. In fact, with the aid of the very technology of computer programming, the Commission may well be able to solve this particular problem.

Section 147 of S. 1042 provides that decisions of the Court of Customs and Patent Appeals (CCPA) be reviewable by the U.S. Court of Appeals for the District of Columbia, on request of either the applicant or the Patent Office, thus adding a new and, we feel, unnecessary stage to the present appeals process.

Section 148 of S. 1042 declares that decisions of the Patent Office refusing a claim shall be given a presumption of correctness and "such decision shall be upheld unless it is without substantial basis or not in accordance with law." Such presumption should not be broader than that accorded the similar decision of any other administrative agency. Thus, we recommend that this quoted portion be stricken from section 148.

Section 154 provides that the term of a patent, now 17 years, be measured from the date of filing an application rather than from the date of issuance of the patent, and extends the term to 20 years. We support the revised term of patent grants and favor extending the term for any required period of delay owing to reasons of national security. We also propose that extensions be given for the delay of an application forwarded for review as required by the Atomic Energy Commission and NASA. Some of these reviews may otherwise cut 6 to 9 months from the term of a patent, resulting in a form of discrimination against contractors filing the affidavits required under law.

Section 271 provides that importation into the United States of a product made abroad by a process patented in the United States shall constitute patent infringement, provided patent protection is not available in the foreign country. We support the imposition of patent infringement liability in such instances, but we question the qualification in subsection 271(b) of S. 1042 that process protection not first be available in the foreign country.

Section 273 of S. 1042 provides an interim remedy for unauthorized practice of an invention during the period of citation after publication, which we favor. But we believe that, in order to be consistent with our view that publications be automatic only after the application is allowable, this remedy should be limited to those cases involving the allowed claims so published. The mere presence of a claim in an application at some time prior to publication should not be sufficient basis for liability.

Section 294 of S. 1042 provides that a final judicial determination declaring a patent claim invalid shall be in rem so that no further cases of infringement of the claim can be brought by the patentee in another Federal court. Section 294 further provides that a decision limiting the scope of a claim shall constitute an estoppel against the patentee to urge a broader interpretation of that claim in further litigation. We feel that the principle of in rem invalidity should be applied only to the cancellation of the claims held invalid.

ESTABLISHMENT OF REGIONAL SEARCH CENTERS—S. 1377

The chamber recommends enactment of S. 1377, by Senator Nelson, and we favor the establishment initially of not more than two additional patent search centers in the United States.

The objectives of S. 1377 are consistent with the objectives of patent law reform and procedural improvements intended in the legislation under consideration.

We feel that the additional patent search centers would provide more opportunity for industry and individuals to examine existing patents and the prior art that has been cited. These records should consist of all U.S. patent literature classified according to the Patent Office system. This information would supplement the present filing of copies, by patent number, in some 20 large libraries around the country. It would provide ready access to the detailed technology, which is usually the most important element of patent information.

In addition to approval by the Patent System Advisory Panel, support for the objectives of S. 1377 was voted by the chamber's science and technology committee and the board of directors.

SUMMARY

The Chamber of Commerce of the United States recommends that the Congress enact such legislation as will beneficially revise the U.S. patent laws and provide for upgrading and improving the operations of the Patent Office.

S. 1042 we believe goes to far—further than is necessary to maintain our patent system as the best in the world. The objectives of good patent legislation are more nearly accomplished in S. 2597.

The chamber's statement has pointed out several ways in which we believe Congress can preserve the best in our system and make it an even better model for other nations of the world:

We favor retaining an appropriate grace period following public disclosure of an invention; a defense of prior invention; and provision of limited interference proceedings for settling contests between competing applications in favor of the true first inventor.

We support publication of applications only after allowance, and the citation of prior art following publication.

We oppose provision for deferred examination as a solution to current problems.

We oppose elimination of "computer programs" from the patent system and recommend further study of the problems of providing patent protection for this subject matter.

We approve changing the term of patents to 20 years from date of filing.

We support the provision of a remedy for process patent infringement by importation, preferably without exempting importation from countries which provides process patent protection.

The U.S. patent system was designed to promote progress in the useful arts. In doing this, it has unquestionably promoted the general welfare. Any changes in this system should therefore be designed to make it even more responsive—as it has been for more than 175 years—to the needs of our investors, our industry, our investors in innovation, and to the public in general.

I thank you, sir.

Senator McCLELLAN. Thank you.

Does your associate wish to make comment?

Mr. ADAMS. No, thank you.

(The prepared statement of Mr. Metcalf appears as follows:)

TESTIMONY FOR THE CHAMBER OF COMMERCE OF THE UNITED STATES BY
GEORGE F. METCALF

I am George F. Metcalf, Vice President of the Aerospace Group, Martin Marietta Corporation, Baltimore, Maryland. I am appearing on behalf of the Chamber of Commerce of the United States, a national federation with an underlying membership of more than 4,600,000 individuals and firms. During my entire professional career in the field of industrial research and engineering, I have had a continuing concern for patents. Before joining the Martin Company in 1962, I was employed for 34 years with the General Electric Company.

I am a director of the National Chamber and served as chairman of its Patent System Advisory Panel.

We appreciate this opportunity to testify before the subcommittee and to discuss proposals which have been made to revise the patent laws of the United States.

The Chamber supports many provisions of the bills before this subcommittee to revise U.S. patent laws and modernize patent practice. We favor such coordinated changes as will demonstrably raise the quality and reliability of patents, hasten the disclosure of new technology, and reduce the time and expense of obtaining and enforcing patents.

We agree that some modification of the present system is desirable. Our position, in general, however, is that the Administration bill (S. 1042) is too drastic and will not necessarily bring about change for the better. Another comprehensive bill (S. 2597), while preserving many features of the present patent law, includes worthwhile changes which would enable the patent system to better meet the challenge of an expanding technological era.

I shall take up these bills in detail later in our testimony, but first I would like to tell the subcommittee why the Chamber is concerned with a viable patent system and how our position on patent revision was developed.

We have followed closely the work of the President's Commission on the Patent System, and our Advisory Panel studied its resulting report which was released in December of 1966. We have considered the views of numerous organizations and individuals and have noted their comments on the Commission's recommendations to the President.

We have studied S. 1042 which was introduced on request of the Administration and other bills, especially S. 2597 with certain proposed amendments.

Recommendations of our Advisory Panel as to applicable principles were approved by the Chamber's Board of Directors on June 30, 1967. This statement is based on the positions thus determined on specific features of the legislation.

(Incidentally, the Advisory Panel was composed of 19 members, about half of whom are patent attorneys and half business executives engaged in technical and research activities. Practically every member participated in each phase of the Panel's work.)

While supporting the objectives stated by the President's Commission, the Panel agreed that these objectives had not been fully met, either in the specific recommendations of the Commission or in the Administration bill.

The Chamber appreciates, as many responsible organizations and individuals also do, that some proposals go too far—are too much of a departure from present law—and that disadvantages may well outweigh advantages. It is evident that persons who are close to the implementation of patent law, both in obtaining and in protecting patents, feel unwilling to support the Administration proposal unless major objections are removed.

Considerable concern has been expressed that hasty action may be taken by the Congress to revise long-standing patent law, without thorough study and consideration of the consequences. We believe that detailed analysis is vitally needed, and that expert testimony must be brought to bear on major provisions of the bills. We would point for comparison to copyright law revision, legislation for which has been subject to patient and careful study by this subcommittee. As a basic approach, we would suggest that no change be adopted until its cost, both in dollars and in the impairment of valuable property rights, has been most carefully weighed.

Although a major objective of the legislation is said to be to "bring the U.S. patent system more closely into harmony with those of other nations," hasty action might easily produce more discord than harmony. The Congress would want to be certain, for example, whether some foreign practices are, as alleged, better than our present practices and that adoption would be a definite advantage to U.S. inventors and manufacturers. If, on the other hand, it is determined that our law is better, Congress should hold ours and urge other nations to take the necessary steps toward harmonization.

With these preliminary observations on the record, we now turn to a consideration of specific provisions of the pending bills.

First to File

The fundamental approach of the Commission's recommendations and of S. 1042 is a shift from a so-called "first-to-invent" to a "first-to-file" system for determining the award of a patent between contesting inventors. Proponents have asserted that this basic change is essential to the attainment of the several inter-related objectives identified by the Commission.

While there is no question that we do live in a period of "exploding technology," the underlying assumption of the Commission that the Patent Office faces an insoluble crisis and can no longer function in any meaningful way without such a complete reform of the existing patent law does not appear supported by the facts. Testimony thus far offered and the public statements of Department of Commerce and Patent Office officials on the whole suggest that the backlog problem, which is the basis for most attacks leveled against the existing patent system, is internal to the Patent Office and can be, and is being, solved by approaches available within existing law.

Further, one may question whether the proposed shift to a new first-to-file system really attacks this backlog problem, since it is reported that all of the world's major patent offices, many of which do use the first-to-file system, are suffering from increasing backlogs which are in many cases more serious than those of the U.S. Patent Office.

We note that the rules governing interferences have been modified recently by the Patent Office with the objective of limiting the number of interferences declared. Such changes emphasize the fact that existing law normally results in the award of the patent to the first inventor to file—subject to the important right of the actual first inventor to contest priority in a specified set of circumstances.

S. 2597, also, provides for issuance of the patent to the first to file and preserves the opportunity for the first inventor to prove priority. We feel strongly that such a limited interference proceeding should be retained in order to avoid the race to the Patent Office, the filing of ill-prepared applications on untested inventions, and the installation of a system which favors the opportunist over the careful researcher.

It seems reasonable to us that this limited interference proceeding should be such that the burden of determining that a contest as to inventorship exists and of establishing a case for initiation of the proceeding should be on the second party to file, rather than on the Patent Office. In order to reduce the period of uncertainty as to the validity of issued patents, opportunity for such initiation should be restricted to those second to file parties whose applications were filed within a year following the filing date of the first to file party and were copending prior to the publication of the application of the first party.

Some provision should be made to protect the first party to file against the inadvertent issuance by the Patent Office of a patent to a later filing party. This could occur by reason of the fact that, as proposed in S. 1042, the Patent Office would not have the obligation to make interference searches. There is the further possibility that applications would not in every case be examined in the order of filing dates. In such circumstances, consideration should be given as to

whether the senior applicant should be freed of the restrictions as to copendency and filing date.

Effect of Prior Invention

We recognize the attractiveness of a system in which the factual situation that would permit a junior applicant to prevail in an interference should be equally effective both to defeat a charge of patent infringement brought by one who was not the true first inventor or to defeat the grant of a patent if brought forth during the citation period provided by either of the bills under comment.

Defense of prior invention.—We do feel that prior invention should be an absolute defense, available to anyone charged with infringement. Although such a defense would be of use primarily to the first inventor, who for some reason decided not to seek patent protection, we favor its applicability on behalf of other defendants because of the basic belief that the public should not be forced to pay tribute to one who is not the first inventor but has, nevertheless, obtained a patent.

Citation of art.—On the other hand, citation during a citation period of prior invention, not evidenced by publication, public use or sale appears undesirable, despite the superficial attractiveness of a symmetrical system of the kind alluded to previously, because the nature of proof would be such as to hinder the operation of the Patent Office in the prompt issue of patents. While it is relatively easy to evaluate proof in the form of documents or publicly recorded acts, private prior invention would require *ex parte* determinations by the Patent Office, which should more properly be made by a court in full *inter partes* procedures.

Citation of art, in our view, should thus be limited to patents, publications, and instances of documented public use or public sale which would be of interest in connection with the issue of the patentability of the claims in published applications. As now is the case, the applicant against whom such material is cited should have the opportunity of carrying the date of his invention back under a procedure such as that of Rule 131 to avoid the effect of any such citation which does not constitute a statutory bar.

Grace Period

The grace period of one year after publication, public use or sale, now available to inventors who wish to evaluate or perfect their inventions prior to entering the Patent Office, is abolished by S. 1042 as inconsistent with the institution of a first-to-file system. No other reason is advanced for abolition of this concept. In view of our position regarding the preservation of limited interferences, we strongly favor retention of the grace period to prevent the well-known abuses which could be expected in its absence.

Preliminary Application

The Commission, and presumably the drafters of S. 1042, have recognized the shortcomings of a first-to-file system without the equivalent of the modifications just enumerated. They have provided for a system of preliminary applications which would serve to establish, hopefully at little expense to the inventor, the facts of inventorship in such a way as to permit early publication of inventions and the elimination of the extensive record keeping and uncertainties now charged against current interference practice under the present law. Examination of Section 120 of S. 1042, however, indicates that the preliminary application fails in every respect to meet these requirements.

A preliminary application, as defined, differs from the complete application under the present law in only two respects. First, it need not make ritual reference to a description of the drawings and, second, it need not include any claim defining the invention sought to be protected. It offers protection to its author, however, only to the extent that it clearly discloses the invention sought to be claimed in the later filing which perfects and completes the application.

In view of the fact that the Patent Office routinely accepts complete applications under the present practice, even though various formal requirements are not met and even though only a single claim not meeting all the formal requirements is presented, there would be little or no saving in the filing of a new kind of preliminary application. Either the inventor himself may prepare a complete application with little extra effort beyond that required for the proposed preliminary and take his chances as to its eventual adequacy, or he may make the investment, which will ultimately be required anyway, in the services of a patent attorney to assure that the preliminary application is adequate in the first place. Under these circumstances the suggested savings do not appear real.

We see no need for a preliminary application as proposed. Informal applications which meet the present requirements of Section 112 would not necessarily require correction or perfection until the case is reached for examination. Then the applicant could decide whether to draft a full set of claims and formal drawings.

Such a procedure could be advantageous to the "small" inventor. It could be instituted without the necessary result of the proposal of S. 1042 that examination of *all* applications be automatically deferred for one year.

Elimination of Uncertainty

Three interrelated features of the Administration bill are: the broadened definition of prior art, the automatic publication of pending applications, and the provision of an opportunity for the public to assist by the citation of art and in revocation proceedings to block the grant of patents with invalid claims. All of these features are directed to the goal of eliminating uncertainty as to the validity of issued patents.

Prior art.—Prior art would be defined to include public knowledge, use and sale in foreign countries. While this would make more art potentially available, it introduces great uncertainty, since no means exists for readily establishing the existence of such art. Greater expense and greater uncertainty, inevitably follow, when acts in foreign countries not reported by publication must be relied upon. In any legislation, prior art should be limited to those things considered under present law, rather than to the definition in Section 102 of S. 1042.

Publication.—The automatic publication of applications as proposed in S. 1042, instead of increasing the speed of dissemination of new technology, can only cause proliferation of untested ideas which can be inserted in the literature without the benefit of review or editing by anyone. The Patent Office should not become a publishing house for unevaluated speculations. At the same time, the existence of the threat of unexamined applications, as outlines for possible future infringement suits, appears greatly to increase the uncertainty facing one who would commercialize new technology.

It is recognized that the automatic publication of pending applications is required if third parties are to assist the Patent Office by citing art during the prosecution process; and such citation of art may be useful. It is recommended, therefore, that the advantages of citation of art be retained without the disadvantages of unverified publication of patent applications. This can be done by *requiring* publication only after examination and allowance. Publication at request of applicant, if included, should be accompanied by a fee sufficiently high to discourage use of the Patent Office as a publishing house.

Standby Institution of Deferred Examination

The authority proposed to be given under Sections 191–194 of S. 1042 should not be enacted at this time. We understand that the Patent Office does not desire this authority to institute a deferred examination procedure and, in fact, has stated it would not use it even if authorized. The concept of deferral raises serious questions and poses practical problems, none of which need to be faced at this time.

Other Changes

In addition to the major provisions of S. 1042 which we have discussed, several other features are significant and deserve careful consideration.

Section 15 establishes an Advisory Council on the Patent System, reporting to the Secretary of Commerce on how the system is serving the public interest. The Council could recommend further ways to improve the quality of U.S. patents. We support the idea of an Advisory Council and the appointment of civilian members, but we oppose any publication by such a Council or the Patent Office of patent quality ratings. Directing attention to improved search and examination, rather than using round-about methods such as general publication, is more likely to upgrade patent quality.

Section 41 of S. 1042 authorizes the Patent Office, rather than the Congress, to determine patent fees based upon a desired rate of recovery specified by Congress. Our members oppose this proposed delegation of fee-making authority to the Commissioner of Patents. Congress should retain such authority, not only over the types of payments required but also as to the amounts. We would oppose, for example, the imposition of patent maintenance fees.

Section 166 of S. 1042 declares categorically that computer programs shall not be patentable. We believe this provision is a too-drastic and quick answer to a new and perplexing problem for the Patent Office. Further study should be given

to alternative solutions for determining what is and what is not patentable in the field of computer software, instead of immediately removing a vast body of technology from patent consideration. The final determination should be fair to all concerned—manufacturers of machinery, developers of programs, and users of programmed equipment.

From the President's Commission report, it is clear that this section is directed in large part to difficulties within the Patent Office in handling a new technology (e.g. classification, search files). If the Patent Office is to be the servant of the patent system, the more appropriate solution is to generate the needed files and expertise within the Office and not to legislate a troublesome area out of the patent system. Industry is learning to cope with programs and related subject matter—so can the Patent Office.

It should be noted that even if some defined area of computer programming technology were to be made "non-statutory," the Patent Office would still have the burden of classifying and searching the computer programming literature because of the close interplay between the hardware and software technologies. Otherwise, either patents in hardware technology would have to be issued without a complete search, or, hardware would have to be made non-statutory also.

Furthermore, it is widely recognized that a major problem in this area—as in any new technology—is one of terms and definition. Any attempt *now* to define an excluded area is almost certain to result in creating not only confusion but also a substantially enlarged or diminished excluded area than intended, when attempting 5 or 10 years hence to interpret the terms used now. Further, except with respect to a relatively narrow exclusion in the Atomic Energy Act, a legislative exclusion of a defined area of technology is without precedent.

The best way for the doubts and uncertainties noted by the Commission to be resolved is through gradual evolution in the courts where *real* questions based on *real* situations can be presented and considered in an adversary environment.

Economics alone argues for strong rather than weak patent protection. The investment in data processing in the United States is growing at a rapid rate. Ten years ago, the investment mix in this software and hardware was heavily on the hardware side. Currently, it is roughly balanced, but by 1970 it is estimated that 70 per cent of the investment will be in software.

The patent system—and, of course, the Patent Office—has grown to embrace many complex and esoteric technologies far beyond the realm of the imagination of its founders. Given a chance, it can embrace computer programing as well. In fact, with the aid of the very technology which the Commission would exclude, it may do it better!

Section 147 of S. 1042 provides that decisions of the Court of Customs and Patent Appeals (CCPA) be reviewable by the U.S. Court of Appeals for the District of Columbia, on request of either the applicant or the Patent Office, thus adding a new and, we feel, unnecessary stage to the present appeals process.

Section 148 of S. 1042 declares that decisions of the Patent Office refusing a claim shall be given a presumption of correctness and "such decision shall be upheld unless it is without substantial basis or not in accordance with law." Such presumption should not be broader than that accorded the decision of any other administrative agency. Thus, we recommend that this quoted portion be stricken from Section 148.

Section 154 provides that the term of a patent, now 17 years, be measured from the date of filing an application rather than from the date of issuance of the patent, and extends the term to 20 years. We support the revised term of patent grants and favor extending the term for *any* required period of delay owing to reasons of national security. We also proposed that extensions be given for the delay of an application forwarded for review as required by the Atomic Energy Commission and NASA. Some of these reviews may otherwise cut 6-9 months from the term of a patent, resulting in a form of discrimination against contractors filing the affidavits required under law.

Section 271 provides that importation into the United States of a product made abroad by a process patented in the United States shall constitute patent infringement, provided patent protection is not available in the foreign country. We support the imposition of patent infringement liability in such instances, but we question the qualification in subsection 271 (b) of S. 1042 that process protection not first be available in the foreign country.

Section 273 of S. 1042 provides an interim remedy for unauthorized practice of an invention during the period for citation after publication, which we favor.

But we believe that, in order to be consistent with our view that publication be automatic only after the application is allowable, this remedy should be limited to those cases involving the allowed claims so published. The mere presence of a claim in an application at some time prior to publication should not be sufficient basis for liability.

Section 294 of S. 1042 provides that a final judicial determination declaring a patent claim invalid shall be in rem so that no further cases of infringement of the claim can be brought by the patentee in another federal court. Section 294 further provides that a decision limiting the scope of a claim shall constitute an estoppel against the patentee to urge a broader interpretation of that claim in further litigation. We feel that the principle of in rem invalidity should be applied only to the cancellation of claims held invalid.

ESTABLISHMENT OF REGIONAL SEARCH CENTERS—S. 1377

The Chamber recommends enactment of S. 1377, by Senator Nelson, and we favor the establishment initially of not more than two additional patent search centers in the United States.

The objectives of S. 1377 are consistent with the objectives of patent law reform and procedural improvements intended in the legislation under consideration.

We feel that the additional patent search centers would provide more opportunity for industry and individuals to examine existing patents and the prior art that has been cited. These records should consist of all U.S. patent literature classified according to the Patent Office system. This information would supplement the present filing of copies, by patent number, in some 20 large libraries around the country. It would provide ready access to the detailed technology, which is usually the most important element of patent information.

In addition to approval by the Patent System Advisory Panel, support for the objectives of S. 1377 was voted by the Chamber's Science and Technology Committee and the Board of Directors.

SUMMARY

The Chamber of Commerce of the United States recommends that the Congress enact such legislation as will beneficially revise the U.S. patent laws and provide for upgrading and improving the operations of the Patent Office.

S. 1042 we believe goes too far—farther than is necessary to maintain our patent system as the best in the world. The objectives of good patent legislation are more nearly accomplished in S. 2597.

The Chamber's statement has pointed out several ways in which we believe Congress can preserve the best in our system and make it an even better model for other nations of the world:

"We favor retaining an appropriate grace period following public disclosure of an invention; a defense of prior invention; and provision of limited interference proceedings for settling contests between competing applications in favor of the true first inventor.

"We support publication of applications only after allowance, and the citation of prior art following publication.

"We oppose provision for deferred examination as a solution to current problems.

"We recommend that Congress retain authority for determining patent fees and related charges.

"We oppose elimination of 'computer programs' from the patent system and recommend further study of the problems of providing patent protection for this subject matter.

"We approve changing the term of patents to 20 years from date of filing.

"We support the declaration of process patent infringement by importation, preferably without exempting importation from countries which do not provide patent protection."

The U.S. patent system was designed to promote progress in the useful arts. In doing this, it has unquestionably promoted the general welfare. Any changes in this system should therefore be designed to make it even more responsive—as it has been for more than 175 years—to the needs of our inventors, our industry, our investors in innovation, and to the public in general.

Senator McCLELLAN. The next witness is Mr. R. L. Heindel.

STATEMENT OF R. L. HEINDEL, MANUFACTURING CHEMISTS ASSOCIATION, INC., ACCOMPANIED BY J. ARTHUR YOUNG, PATENT COUNSEL, PHILLIPS PETROLEUM CO.

Mr. HEINDEL. I have with me today Mr. J. Arthur Young, patent counsel for the Phillips Petroleum Co., who was the chairman of the subcommittee responsible for the draft upon which our association statement is largely based.

Senator McCLELLAN. Very well. Let the record so reflect.

Mr. Heindel, I see you have a lengthy statement.

Mr. HEINDEL. Yes, sir, I will cut it short.

Senator McCLELLAN. Do you want to highlight it?

Mr. HEINDEL. I will, sir. I would like to read part of the first page because I think it indicates—

Senator McCLELLAN. Read any part of it you want to and indicate where you are reading so I can follow you. Any part that you do not read will be printed in the record.

Mr. HEINDEL. Thank you, sir.

Senator McCLELLAN. All right, you may proceed.

Mr. HEINDEL. My name is R. L. Heindel and I am appearing today on behalf of the Manufacturing Chemists' Association, Inc. (MCA), a nonprofit trade association of 186 United States and 14 Canadian company members representing more than 90 percent of the production capacity of basic industrial chemicals within these countries. I am chairman of the MCA Patent Committee, which is composed of 18 member company patent attorneys or executives. As for myself, I am manager of the International Section of the Patent Department of the Dow Chemical Co.

At the outset, I wish to emphasize that the subject of patents is an extremely important one to the chemical industry. As you know, our industry spends more of its own money on research and development than any other. During 1966, for example, it has been estimated that some \$1.3 billion was expended by the chemical industry on research and development. Further proof of our vital interest in this subject lies in the fact that more than 20 percent of all U.S. patents issued are chemical patents.

We wish to express our appreciation to you gentlemen for this opportunity to present the views of our association on the various provisions of S. 1042 which contains major revisions of the patent laws, principally title 35 of the United States Code. In general, these proposed revisions embody most of the recommendations made in the report of the President's Commission on the patent system. The Manufacturing Chemists Association believes that this Commission was composed of dedicated men who worked diligently to arrive at recommendations which they believed to be constructive and which would accomplish the objectives set forth in the report.

The Manufacturing Chemists Association is in favor of the objectives outlined by the President's Commission and by President Lyndon B. Johnson in recommending the Patent Reform Act of 1967:

To raise the quality and reliability of U.S. patents.

To reduce the time and expense of obtaining and protecting a patent.

To speed public disclosure of scientific and technological information.

To bring into closer harmony the U.S. and foreign patent systems.

The MCA is in favor of those provisions of S. 1042 which appear likely to promote any of the foregoing objectives.

We find ourselves unable to support the legislation represented by S. 1042 in toto, however, due to certain specific provisions which we feel tend to frustrate rather than fulfill the stated objectives and due to the omission of provisions implementing certain recommendations of the President's Commission.

It appears to us to be obvious beyond question that a reliable, protectable U.S. patent of high quality must be based, as a minimum requirement, on a careful and thorough disclosure and a careful and thorough examination. Thus, those provisions which would produce shoddy, narrow, unreliable and unprotectable patents as the result of an undue emphasis on speed are in our opinion in need of careful study and revision.

It also appears to us that harmonization of U.S. and foreign patent systems can most effectively be brought about by the normal processes of negotiations between appropriate experts of the several governments, followed by suitable legislation, rather than by unilateral changes in U.S. law. Even the most optimistic proponents of a world-wide harmonization of patent systems recognize that many countries will have to change their laws and that the process will take a very long time. There is no reason for us to be precipitate.

Before beginning a discussion of the specific provisions of S. 1042, we would like you to consider certain additions which we believe should be incorporated in the bill. We strongly favor insertion of provisions implementing two recommendations of the President's Commission not covered by S. 1042: namely, recommendation XXI relating to importation into the United States of products made abroad by a process patented in the United States, and recommendation XXII that the licensable nature of the rights granted by a patent should be clarified by specific statutory language.

There is a provision in the proposed act (sec. 271(b)) relating to the importation of products, but it fails to effect what was recommended by the Commission. To conform to recommendation XXI of the President's Commission, section 271(b) of S. 1042 should be amended by deleting from line 22 the words, "for purposes of trade or use in trade or industry" and by deleting from lines 24 and 25 the words, "provided patent protection for the process is not available in such country." The purpose of the Commission's recommendation was to enable an American patentee to prevent evasion of his U.S. process patent by suit against importation of products that, if made in this country by his process, would infringe. This would conform to the law in many if not most foreign countries. Amendment 184 presented by Senator Long of Missouri and S. 2597 would each conform to recommendation XXI.

However, as presently worded in S. 1042, the provision would permit importation without recognition of the patent. In addition, the provision is not in harmony with the laws of other key countries. An American applicant would be compelled to obtain protection in all foreign

countries and rely on foreign patent protection since this provision becomes available to him only when foreign protection is not available. The present provision is of only extremely limited value. An American applicant should not be compelled to incur the cost of foreign patent protection and enforcement unless he wishes to do so for other reasons than to protect his U.S. rights. Although we now have limited protection under the Tariff Act of 1930, the procedure is cumbersome and of little use. The proposed section, amended as we have recommended, would afford the patentee this protection through regular infringement actions, and would be similar to that afforded patentees in foreign countries.

There is no provision in S. 1042 dealing with the Commission's recommendation XXII, that there be explicit statutory language defining, for the purpose of assignments and licenses, the nature of the patent grant heretofore recognized under the patent statute or by decisional law. We urge that such a provision be inserted, that as recommended by the Commission and for the reasons stated by the Commission, it be explicitly stated in the new act, as provided in amendment 183 and in S. 2597, that—

(1) Application for patent, patents, or any interests therein may be licensed in the whole, or in any specified part, of the field of use to which the subject matter of the claims of the patent are directly applicable, and;

(2) A patent owner shall not be deemed guilty of patent misuse merely because he agreed to a contractual provision or imposed a condition on a licensee, which has (a) a direct relation to the disclosure and claims of the patent, and (b) the performance of which is reasonable under the circumstances to secure to the patent owner the full benefit of his invention and patent grant.

Turning now to the bill itself, MCA believes the Commission did not give sufficient consideration to the effect of its basic recommendations on the so-called process industries. By process industries I mean, for the most part, the chemical, pharmaceutical, and petroleum industries. Inventions made in these industries normally are the result of discoveries made during the course of research programs extending over months at a minimum and usually over several years. At the birth of a new or improved process, the inventor usually has only meager knowledge of the many variants such as pressure and temperature conditions, catalysts which may be used, operable reactants, et cetera, which his newborn discovery involves. To complete the research and come up with a well-rounded knowledge of his process, requires lengthy research and development effort. Similarly, when the invention is a new chemical compound, such factors as utility, activity of related compounds, and scope of the invention are unknown until further research is carried out. In the mechanical and product industries, and to a considerable extent in the electrical industries, once the invention is made in its initially crude form, equivalent means of accomplishing the desired end are immediately apparent to those skilled in the arts. Since such means are apparent, the courts will extend patent protection to such inventions to cover these equivalents. In the chemical industries, on the other hand, predictability is not the usual thing. Catalysts, reactants, and reaction conditions are susceptible to only limited predictability as has been recognized by the Patent Office. Because such

things are not predictable, it is generally necessary to determine the scope of the invention by many time-consuming additional experiments once the initial discovery is made.

All of this leads up to our position with respect to revised sections 102, 103, 111, and 120 of the proposed new title 35, United States Code, embodied in S. 1042. These sections, and particularly sections 102 and 103, embody among other things a major basic change recommended by the President's Commission; that is, that a patent shall be granted to the inventor who first files an application describing and claiming the invention in the U.S. Patent Office, rather than to the inventor who first made the invention, as under the present law. This proposed revision has sometimes been referred to as the race to the Patent Office.

The granting of the patent to the first to file will necessitate the filing of applications of narrow scope prematurely and encourage the filing of prophetic, scientifically unsound disclosures by less meticulous inventors to the detriment of the careful scientist. This result has long been observed in Europe which has a first-to-file system. The incomplete disclosures of many of the European patents issued in the chemical field are viewed as insufficiently informative by American scientists and engineers. In our opinion, therefore, the adoption of this provision will result in the filing of many half-baked patent applications. The argument is sometimes made in such cases that the inventor could avail himself of section 111. This section allows the filing of so-called preliminary applications, which within 1 year can be combined into a so-called complete application. In our opinion this does not solve the problem, at least from the standpoint of the chemical industry. For professional reasons, inventors do not like to file prophetic or incomplete disclosures of their inventions. Also, in our opinion a rash of preliminary disclosures would only add to the burdens of the Patent Office examiners and make examination of an application more difficult, since the examiner would have to determine whether or not (or to what extent) the disclosure contained in such preliminary applications is sufficient to support the disclosure and claims in the final complete application.

It may also be pointed out that the requirements for early filing in order to obtain priority militate in favor of large research organizations, with their availability of multiple skills, equipment, and staff to enable prompt evaluation of data; and to the disadvantage of independent inventors or smaller organizations, who must either take more time for such evaluation or rely on outside services.

The argument has been advanced in support of these proposed modifications of the present law that it brings our system more in line with those of foreign countries. Proponents argue that the United States is practically the only country (other than Canada and the Philippines) which grants patents to the first inventor instead of the first to file. While this is admittedly true, the attitudes toward the individual inventor, the business practices, and the laws and practice of foreign countries with respect to degree of disclosure required in applications and the scope given to patents by the courts are markedly different from those in the United States. For example, many disclosures of invention which are considered perfectly adequate in foreign countries, and particularly in the leading European industrial countries, are considered inadequate by our Patent Office and courts.

Our laws require that disclosures be complete and full. Likewise, our courts take the general attitude that patents should be limited to what is precisely disclosed and claimed therein, whereas the courts of many foreign countries tend to extend to the patent a broader construction than what is exactly disclosed and claimed. For this reason, an inventor in Germany, for instance, can race to the patent office with a minimum disclosure and be fairly certain the patent office and courts will give a substantially wider scope of protection.

It is argued that this proposed revision, in bringing our system more in line with that of the other industrial countries of the world, will ultimately pave the way for the adoption of a universal patent system. MCA advocates elimination of conflicts in the various world patent systems to the greatest possible extent consonant with preservation of the American philosophy with respect to patents. We should not give up what has proved very successful in our own system and helped to contribute to our leadership in the scientific community merely for the sake of uniformity. It may be pointed out that the proposed legislation contains numerous provisions which are not in harmony with the laws of other industrial countries. It seems premature to enact legislation of this nature until some common groundwork is laid in the form of concrete proposals which are at least preliminarily acceptable to other nations. If we act prematurely, it will undoubtedly be necessary to further amend our patent laws when, and if, such common understanding is eventually reached. In our opinion, the realities clearly indicate that a uniform, worldwide patent system is far down the road.

Another argument vigorously advanced in support of the first-to-file provisions in the proposed law is that adoption of such a system would eliminate interference practice which often results in lengthy and costly proceedings to determine first inventorship. While MCA agrees that the interference practice as it now exists needs major revision to shorten the time and reduce the expense of the proceedings, it feels that the advantages of the present system greatly outweigh the disadvantages for the reasons advanced above. We would further like to point out that as recently as July 1, 1965, Commissioner Brenner promulgated a new set of rules for interference practice. These new rules were expected to greatly speed up interference practice. It is strongly urged that this revised system has not had an adequate test to demonstrate its supposed value. We feel that the present proposals to abolish interference practice are not timely.

There was comment by one of the witnesses this morning on the relatively small number of interferences. In this connection it should be borne in mind that only a very small number of patent applications filed in the U.S. Patent Office become involved in interference proceedings. Of the percentage that do become involved in such proceedings, by far the greater part are amicably settled without proceeding to the taking of testimony and hearings before the patent examiners and the court. We have been informed, unofficially, by the Patent Office that during 1965, 589 interferences were declared but 405 interferences were settled during that year. In the year 1966, 453 interferences were declared and 356 settlements were effected. It is thus apparent that only an extremely small percentage of applications on file at any one time are involved in interference and that an even smaller percentage are delayed through interference proceedings in

the Patent Office. According to the Official Gazette of the U.S. Patent Office, 194,565 patent applications (excluding designs) were pending as of January 3, 1967. According to the best information available, only 1,211 of those (about 0.6 percent) were involved in interference. This is a small price to pay for the assurance that inventors have time to prepare full and complete disclosures of their inventions before filing in the U.S. Patent Office. Even though such a small percentage of applications is involved in interference, the fact that an inventor knows that he will have an opportunity to prove his date of invention permits him to take the time necessary to perfect his invention and prepare a full and complete disclosure before filing his application in the Patent Office.

Two other changes embodied in proposed section 102 of the act we feel are not changes which will benefit the U.S. public or the inventor. The first of these would change the present laws to provide that public knowledge or public use or sale abroad would be a bar to patentability in the United States. We feel the U.S. inventor should not be denied his reward and the public the benefit of the invention merely because it can be proved that somewhere in some foreign country some public use, knowledge, or sale of the invention existed prior to the date of the invention in this country. The problem of impeaching false testimony on use in a foreign country merely has to be stated to be appreciated as horrendous.

May I insert a few words that do not appear in the statement?

Senator McCLELLAN. Oh, certainly.

Mr. HEINDEL. The President's Commission suggested in this connection that the material to constitute prior art should be in tangible form. That limitation was omitted from S. 1042 as drafted. There may be some little problem as to what is tangible form, but I take that to mean printed publication or provable evidence that this physical object, the object of the invention, was in existence somewhere at the right time. That recommendation of the Commission would, in my view, have the effect of eliminating from consideration mere oral presentations as to which proof would be most difficult.

The argument is put forth that such knowledge, use or sale in a neighboring country such as Canada or Mexico should be just as effective to bar a patent as public use or sale in one of the most remote States such as Alaska. The chance that something is well known just across our border but unknown in the United States would seem so remote that it would not justify going as far as the proposed section. That which is reasonably available to the U.S. public should be a bar, and in these days of rapid spread of knowledge it can safely be assumed that knowledge anywhere soon becomes reasonably available within the United States and can be proved here. This provision imposes an added burden upon the inventor in defending against the citation of such prior art and the Patent Office in evaluating it. Such an obscure citation could serve to prevent the procurement, or lead to the invalidation, of a patent obtained after great effort and expense, along with the destruction of the investment in development.

The possible effect upon a small inventor may be illustrated by the case of *Badowski v. the United States* (109 USPQ 293, 118 USPQ 358 and 125 USPQ 656), in which the inventor first submitted his invention to the Army on March 26, 1942, and obtained a decision

in the Court of Claims holding his patent valid and infringed 14 years later on May 1, 1956. Thereafter, the Government "after months of diplomatic endeavor by the defendant's Embassy in Moscow" obtained a copy of a Russian Government document indicating that a similar device may have been used in Russia prior to the inventor's filing date in the United States. The Government's petition for a new trial 2 years after the Court of Claims decision was denied on the ground that the document was not a publication. This was evidence which could only have been obtained by the Government. It would not have been supplied to any private party by the Soviet Government. How could any applicant—big or small—investigate the accuracy of such data, or interrogate witnesses under such circumstances?

It is apparent that prior use or knowledge abroad, as a statutory bar to patentability, unless evidenced in some form readily available to the public, such as a publication, would impose insurmountable burdens upon applicants and the Patent Office.

It may also be pointed out that this provision has no bearing on the objective of strengthening the U.S. patents since it merely introduces a totally new basis for invalidity and, hence, could weaken issued patents by permitting citations of obscure public uses. There is also no contribution to international harmonization since many foreign industrial countries do not have such a provision in their laws. We strongly favor retaining the present law in this respect.

The second provision in proposed section 102, representing a change, deals with the effective date, as prior art, of a U.S. patent or published complete application. The proposed change would extend the effective date to encompass the foreign filing date, where the U.S. patent being used as a reference is based on foreign filing. We do not feel that sound reasons have been advanced in support of this proposed change. It would penalize the U.S. resident by imputing to the reference a date of disclosure abroad for information which may not have been in the original foreign document and whose only proven date is the U.S. filing date. We do not feel this is equitable or that it serves to promote the U.S. patent system or the public good. Here again this provision does not harmonize with the laws of other key countries. We favor the relevant provision of S. 2597.

By way of explanation of what I have just said, when a patent examiner or a patent attorney reviews a printed U.S. patent to consider its possible pertinence as a reference, he will also note whether it purports to rely for priority as to its claimed subject matter on an earlier filed foreign application. Ordinarily neither the examiner nor the patent attorney will go back into the history of the patent under consideration to see whether all of its disclosure traces back to the foreign application. When issuing such a patent, the U.S. Patent Office makes no such determination. Only in certain few instances is a partial determination made that the foreign application can be relied on in an interference or to antedate another reference. We are now being asked to accept a mere claim to priority printed in the heading of the patent as evidence that everything in the U.S. patent was in the foreign case on its asserted filing date. We continue to believe that the only proven date for the disclosure in a U.S. patent is the U.S. filing date.

We are in substantial agreement with the tenor of the remarks made by the witness on behalf of the American Bar Association.

Revisions of sections 9, 11, 118, 123, 151, and 181 are necessary to effectuate the recommendation of the Commission with respect to publication of an application prior to issuance thereof. We would have no objection to early publication of an application with the principal claimed subject matter indicated to be allowable and, provided the patent is granted to the first inventor rather than the first to file. We feel it to be detrimental to the public and the patent system to indulge in a "race to the Patent Office" and at the same time publish the application shortly thereafter. This would deprive the applicant of an opportunity to add, by continuation-in-part applications, subject matter which he was unable to determine prior to filing because of the requirement that he file immediately or run the risk of losing his invention.

It is the position of MCA that proposed section 120 is not in the best interest of the patent system, and, therefore, the public. The provision is said to have as its purpose elimination of abuses resulting from the filing of a series of continuing applications over a period of years, each of which is dependent upon the prior one (at least in part) for its effective filing date. We feel the inventor should have the right to perfect his disclosure by filing additional applications containing material pertinent to the invention developed subsequent to filing the original application. In this way the final patent will have the most complete disclosure for the public's benefit. Any abuses in the present practice with respect to continuations-in-part can be corrected by revision of practices within the Patent Office itself such as prompt examination and determination of patentable subject matter and requirements that continuation applications be placed in condition for allowance promptly after filing.

Sections 191-194, inclusive, of the proposed act provide for an optional deferred examination system, for example, similar to that which has been adopted in the Netherlands, and more recently in Germany. This would permit filing of patent applications by anyone claiming to be an inventor, but deferring the examination of applications unless and until a request is made therefor. Presumably, this would eliminate examinations of many patent applications covering inventions which do not appear to be important or that have been filed for protective purposes. We feel a basic change of this nature should not be left to the Patent Office's discretion. This change can be incorporated in the statutes at any time should there be demonstrated need therefor.

I observe that the remarks made by the Commissioner this morning and those contained in the letters to Senator Eastland indicate a modified view on this particular point. At the present time, improvements in patent examining procedures have greatly decreased the backlog and speeded up the examination of applications, so it is doubtful that a radical change of this nature is necessary. We believe we should wait until the Dutch system has proved itself before considering adoption of a deferred system of our own.

Proposed section 148 incorporates a recommendation of the Commission that Patent Office decisions be given the presumption of correctness on appeal. MCA opposes this provision of the proposed act

because it places too much weight on Patent Office decisions which are made by an administrative tribunal and not a court with a broad perspective of the law. We believe that the courts now give proper weight to the Patent Office findings, as is indicated by the high percentage of decisions of the Patent Office which are upheld. We do not believe that it is desirable to interfere with the judicial function in evaluating questions of patentability.

This next part was discussed quite adequately by the American Bar Association.

Proposed section 147 would permit a petition in the nature of certiorari to the Court of Appeals of the District of Columbia to review decisions of the Court of Customs and Patent Appeals rendered on appeals from the Patent Office. We feel this section is not needed and it would insert merely another court into the appeal procedure. Certiorari to the Supreme Court is now available to correct decisions manifestly wrong. In addition, the number of appeals and the cost to applicants would be increased since it must be assumed that the Patent Office will appeal every decision adverse to it. The Cochairman of the President's Commission, Judge Rifkind, has testified that the principal matter to be corrected is the current attitude of the Court of Patent Appeals toward the burden of persuasion to be borne by the applicant. Since such burden is a matter of degree, it would seem to be a trifling reason for adding a further burden of appeal.

Proposed section 136 provides for reexamination of an application after publication under section 151, or in other words after allowance, based upon prior art brought to the attention of the Commissioner within 3 to 6 months. Under this provision, after an applicant has undergone the time, effort, and expense of complete prosecution of his application to allowance—perhaps including appeals to the Board of Appeals and the courts, he may be compelled to repeat the whole procedure, with attendant great cost and delay, plus additional burdens upon the Patent Office. Since the statute would not compel third parties to submit prior art, many would elect to avoid the cost of searching the prior art at this time on the theory that the patent may not be important to their operations, or would elect to withhold such art until they are actually faced with litigation. Thus, the objective of eliciting the best art would not necessarily be accomplished.

If this provision is to be effective, all interested parties would be required to make duplicate prior art investigations which would be costly. If there is to be any form of early publication, any party may call prior art to the attention of the Patent Office at the time of publication, and before any lengthy prosecution, without special statutory provisions. It would appear that plans to exchange search results and provide for international search facilities would render this provision unnecessary, and the few situations in which prior art may be overlooked hardly justify the economic cost of this proposal. It may again be noted that there is nothing in this proposal which harmonizes with the laws of other countries.

Proposed section 257 would institute an *ex parte* cancellation proceeding with respect to issued patents if application therefor is made prior to 3 years from the grant of the patent. MCA opposes this modification of the patent laws. It feels that once a patent is issued it should be invalidated only by a decision of a proper court. Adoption

of this provision would subject every patentee to possible harassment at a critical time in the patent's life. It would delay commercialization of inventions and the licensability or marketability of patents. The patent owner would be subject to having his patent attacked by every real or imagined infringer for the purpose of delaying enforcement thereof. We think that an effective and workable patent system should establish the inventor's rights, as well as those of the public, at the earliest possible date.

Proposed section 154 of the act, paragraph (c) provides that if issuance of a patent has been delayed because of a secrecy order, the term should be extended by a period equal to the delay. While we favor this provision we also favor extending it to include delays not the fault of the applicant.

Proposed section 253, paragraph (c), would in effect, prevent the patentee from filing a terminal disclaimer to so much of the term of an unexpired patent as exceeds the term of a prior patent of the patentee to avoid double patenting. MCA opposes adoption of this provision since it can see a positive benefit to the public in permitting the practice. This incident most often occurs when a patentee wishes to cover some species of the invention which he has been unable to cover in his earlier patent but which is unpatentable over the invention claimed therein. Permitting the filing of such a disclaimer would do no harm to the public since the second patent would not extend the term of the monopoly beyond that granted by the prior patent.

I will inject some remarks here not contained in our printed statement.

Reference has been made both in the Commission's report and in the administration's remarks regarding S. 1042 about harmony with foreign laws. I would like to point out that proposed section 253(c) to deny the effect of terminal disclaimers in closely related patents would actually put us at odds with many such laws. Now, I don't mean that there are laws with respect to terminal disclaimers in other countries.

It is common statutory practice in many countries to grant patents of addition for improvements on or additions to the main patented invention, and such patents of addition expire with the main patent regardless of their filing dates. Accordingly the existing U.S. law, 35 U.S.C. 253, provides a harmonizing tool which S. 1042 proposes to make ineffective for its main purpose of preventing inequitable extension of monopoly in situations designated as double patenting.

We feel that the discussion given this morning by the American Bar Association witness is adequate with respect to section 251.

Proposed section 251, paragraph (c) would eliminate the present provision for obtaining a reissue patent enlarging the scope of the original claims. We see no reason for changing this section, since the present statute provides adequate safeguards to prevent abuse of the reissue procedure. Only a limited period of time is presently allowed during which a broadened reissue claim may be obtained, and since this procedure merely provides an equitable remedy for correcting an error, we see no reason to eliminate this procedure altogether. We are unaware of any finding or inference that the present statute has caused any problems.

MCA is opposed to proposed section 294 which provides that judgments of invalidity in patent suits shall be in rem. Although on the

surface this looks like a reasonable proposal, it would in our opinion tend to stifle advancement and development of the patent law. As we are all aware, the standards of patentability and the scope extended to patents varies in the several circuits. At certain periods certain circuits are said to be strongly "antipatent," whereas other circuits are said to be strongly "propatent." There are other circuits which are between the two extremes. As new judges are appointed, circuits tend to change their standards and some circuits which were formerly antipatent are now considered propatent. If patent decisions were in rem we believe "forum shopping" would be widespread. Also, the patent laws would tend to be straitjacketed with little opportunity for development through different court decisions. While there are abuses caused by multiple suits on the same patent against different defendants in different circuits, these abuses are the exception rather than the rule. It is our opinion that the overall balance of good is greatly in favor of retaining the in personam nature of patent cases. It should also be noted that the proposed section would not eliminate suits in different circuits, since only invalidity and infringement decisions against the patentee would be in rem. Decisions sustaining the patent or holding it infringed would be in personam.

Section 15 of the proposed act would establish a so-called advisory council to study continuously and suggest revisions of the patent laws. The advisability of establishing a statutory watchdog group is questioned. We feel that once the patent laws have been revised, they should be left alone for a reasonable period of time. Stability in any branch of the law is, in our opinion, to be desired. Research and patent planning can then be conducted with some degree of assurance that basic changes in the laws will not be made every year or two. We feel adequate revisions of the laws, when needed, will come about through recommendations of the bar associations, the various business and technical organizations, and the Government itself.

Section 184, which is also in the present statute, requires that a special license be obtained from the Commissioner of Patents in order to file an application in a foreign country within 6 months of the filing of a complete application in the United States. This section imposes a special burden upon patent applicants which appears to be unjustified. At the same time, an additional burden in the granting of licenses is imposed upon the Patent Office. There appears to be no reason why technical data in patent applications and amendments thereto should be treated any differently than other forms of technical data. We, therefore, recommend that section 184 be revised by rewriting the first sentence thereof to provide that the license referred to must be under the Export Control Act of 1949 in conformity to the provisions of the Code of Federal Regulations relating thereto. (Title 15, ch. III, CFR, sec. 385.1.)

The association favors the other provisions of the proposed act and feels they will improve and nourish the patent system which has contributed so much to our progress and prosperity as an industrial nation.

I know, sir, that the hearings today contain as part of the subject matter Senate bill 2 by Senator Smith of Maine, as to which I have heard no remarks. Would you care for a brief remark there?

Senator McCLELLAN. Very well.

Mr. HEINDEL. This, I must say, is not a statement that has been submitted to or approved by the MCA committee, but it is one with

which I have found no disagreement among the people with whom I have discussed it.

If read literally, S. 2 would appear to waive any time limit on prior publication by the prospective applicant for patent, if the latter asserts a copyright and gives notice that he contemplates filing a patent application.

Now, since 1940 in this country, we have gotten along quite well with a 1-year grace period. Mere contemplation of a future possible patent application would not seem to provide immunity from the 1-year bar. We are not permitted to make reservation for future applications in patent applications on file in the Patent Office, and I see little reason to honor such reservations when made elsewhere even in connection with the claim to copyright.

Senator Nelson was here and testified in respect to the bill that he introduced, S. 1377. As to that, I am sure that there is very general widespread agreement that the proposed establishment of search facilities and dissemination of information on patents should be encouraged, subject to budgetary control by the Congress. The distribution of technological information available to or within the Patent Office, that is some language taken from S. 1377, must be subject to the provisions of section 122 of title 35 relating to the confidential status of applications.

That is all that I have, sir. I would be happy to answer questions. Mr. Young is here for that purpose, too.

Senator McCLELLAN. Thank you very much, Mr. Heindel.

Mr. Young, do you have any comments?

Mr. YOUNG. No; I have none, sir.

(By order of the chairman the supplementary statement by the Manufacturing Chemists Association follows:)

SUPPLEMENTARY STATEMENT BY MANUFACTURING CHEMISTS ASSOCIATION

The Manufacturing Chemists Association urges that Title 35 U.S.C., section 24, first paragraph, as presented in the bill S. 2597 be amended by inserting the words "of Rule 45(b)" in the second sentence thereof. The first paragraph of section 24 would then read as follows:

"The clerk of any United States Court for the district wherein testimony is to be taken for use in any contested case in the Patent Office, shall, upon the application of any party thereto, issue a subpoena for any witness residing or being within such district, commanding him to appear and testify before an officer in such district authorized to take depositions and affidavits, at the time and place stated in the subpoena. The provisions of *Rule 45(b)* of the Federal Rules of Civil Procedure relating to the attendance of witnesses and to the production of documents and things shall apply to contested cases in the Patent Office."

This section of the U.S. Code has *recently* been interpreted by the courts to mean that the language of the last sentence (without the underscored amending phrase as above) carries into the Patent Office rules *all* of the discovery provisions of the FRCP. In the case of *In re Natta et al.*, in the Court of Appeals for the 3rd Circuit, 156 USPQ 289, the majority opinion stated: "This statute manifests a clear congressional intent to make available to parties to patent inferences (sic) the general discovery provisions of the Federal Rules of Civil Procedure. The reviser's note to the 1952 amendments states, in part: 'Reference to a repealed statute is replaced by reference to the Federal Rules of Civil Procedure and certain rules are made applicable.' The repealed statute referred to was R.S. 869 (28 U.S.C. Sec. 647) which like present Rule 45(b) under the Federal Rules, dealt with subpoena duces tecum. If Congress had desired to limit discovery to the type available under Rule 45(b), it simply would have pointed to that specific rule instead of referring generally to the Federal Rules of Civil Procedure. Absent a clear indication of contrary congressional intent, we are compelled to the conclusion that broad discovery is available."

A dissenting opinion by Judge Seitz in that appeal stated: "the majority conclude that by making the changes reflected in the present statute (35 U.S.C. Sec 34 [sic]), particularly by substituting the words 'Federal Rules of Civil Procedures', Congress intended to enlarge the statutory power of the district court to include the right to compel 'discovery' to the full extent permitted by such rules. I cannot find such a congressional intent."

Judge Seitz went on to point out that the subpoena duces tecum statute, which was incorporated by reference in the 1922 statute, was repealed by the adoption of the Federal Rules in 1938 (long prior to the 1952 recodification of the patent laws), and it was quite natural, in recodifying, to replace the reference to the statute governing the issue of subpoenas duces tecum with a reference to the Federal Rules of Civil Procedures.

Whether or not the Court was right as to the intent, it is clear that this interpretation of the statute makes a significant change in the practice since, until the last few years, no one used discovery in interferences, believing it was not available in accord with prior Patent Office pronouncements.

The presently proposed amendment to Section 24 is intended to "put back on track" the long established practice that the discovery procedures of the 1938 FRCP do not apply in interferences in the Patent Office other than as set forth in Rule 45(b) thereof.

There is good reason why these discovery procedures should not so apply:

(1) Interferences, dealing as they do with proprietary technical information, should not be permitted to be used as a means for a competitor to obtain an unfair advantage over his opponent by using the facilities of a district court to require the opponent to open his research reports, laboratory records, etc., in discovery proceedings. How better could the courts be "used" for industrial piracy, a problem that has recently plagued several member companies of this Association.

(2) In connection with the Dirksen and Poff bills, as well as the administration's Patent Reform Act, all presently before the Congress, much concern has been evidenced in connection with the long delay in issuing patents caused by prolonged interference proceedings. The effect of the recent innovation of bringing discovery into interferences has been to create excessive delay and unlimited opportunity for such delay. (In one instance, the original trial period set to be completed in March 1965, is not yet completed in February 1968.)

(3) The Patent Office simply does not have the mechanics to administer discovery proceedings in interferences; i.e., to compel their prompt completion and/or to protect the interests of the parties. The litigants would be (and presently are) forced to keep "running" to one or more district courts who have no knowledge of the subject matter involved or of Patent Office procedures. These latter procedures, in contrast to a district court's procedures, do not include the pretrial period where the discovery proceedings are conducted. After the interlocutory period for motions, the interference procedure calls for the immediate trial in which the evidence is adduced and presented via deposition to the Board of Patent Interferences for decision. It is quite obvious that combining the discovery depositions with the trial depositions in an interference leads to nothing but confusion compounded by confusion. On the other hand, when there are compelling reasons for discovery, the losing party in an interference in the Patent Office has available to him a 35 U.S.C. 146 action (an appeal as it were) in the district court where there are then procedures set up to adequately handle discovery depositions in a pretrial proceeding, and thus avoid bogging down the administrative procedures of the Patent Office.

Senator McCLELLAN. Mr. Brown Morton, will you come around, please?

Mr. BRENNAN. Mr. Morton, you have a prepared statement. Do you wish to have this filed with the subcommittee?

**STATEMENT OF W. BROWN MORTON, JR., ESQ., A LAWYER
ENGAGED IN THE PRIVATE PRACTICE OF PATENT, TRADEMARK
AND COPYRIGHT LAW**

Mr. MORTON. Yes, I do, Mr. Brennan. I have a prepared statement which would be a waste of time to read. I would rather just emphasize the points I want to make.

Mr. BRENNAN. It will be made a part of the record.

Mr. MORTON. In the first place I appear in a private capacity and not in a representative capacity at all. I have appeared before this subcommittee on other matters in a representative capacity. The purpose of my appearing here really is to state something different from the gist of the testimony that I understand has been given to date. That is to support the basic propositions of the President's Commission, and in particular the suggestions of the President himself in this letter transmitting S. 1042 to the Congress.

I would like to emphasize that the testimony which I am about to give is keyed to a bill which was introduced in the House of Representatives under number H.R. 11447 by Representative Broyhill of Virginia. He was kind enough to do that simply because I teach the subject of patent law at the University of Virginia, and thought that was sufficient connection with this interest to introduce my bill by request.

There are I think very fundamental differences between the approach of the bill I have prepared, with the very substantial assistance of my friends and colleagues, and S. 1042. They are fundamental in approach to the matter of definition of prior art, to the matter of the adaptation of a first-to-file system to the problems that the other speakers have spoken about. We take up first the matter of the definition of prior art.

What struck me first, when I read recommendations of the President's Commission, was the very correct emphasis that prior art shall comprise information; that is to say, knowledge known to the public or made available to the public in certain ways, without any specific limitation to national boundaries.

When I read that, it appeared to me that for the first time a responsible body was proposing to define prior art as information rather than as, as one of the speakers has just finished saying, a thing. That seemed to me so clearly correct that I undertook to define prior art with the assistance of colleagues, and, by passing my drafts around amongst friends and associates at the patent bar, came up with a definition of prior art in those terms, which I commend to the attention of this subcommittee, because, of course, it would fit into any patent law. It is not necessary to have other elements of so-called referees—it could be fitted into the present statute. My definition is found in H.R. 11447, section 100, and applied in sections 101–103.

I should also point out that, while the President's Commission does not say so, where its recommendation says, "Prior art shall comprise any information known to the public," I have assumed and made explicit in my definition that that means the **relevant U.S. public**.

If we are speaking of information available, then we are not talking about unrecognized or concealed qualities of tangible things. If I may point out what I mean, because it is not always clear, if there were, unquestionably dated by its long stay, say in a Texas museum, a sword which had a certain alloy in it, but nobody knew it, it would become prior art under the Commission concept and my concept only when somebody found out and knew what was in it, because the sword sitting there unanalyzed would instruct no one about the alloy. This approach eliminates a great many of the difficulties people foresee in universal prior art in the sense that, if something was allegedly sold in a remote

part of the Argentine, and that object were made prior art, it would be really impossible. Under my concept, it is information which has come about in the Argentine and which is available to the U.S. public that is the prior art and can necessarily be easily provided or disproved as a consequence of the requirement of availability. I believe that this is a concept so fundamental to the correct structuring of the patent law that I urge it upon this subcommittee as a fundamental corrective in any of the pending bills.

I may say that I have approached this whole matter of revision, and especially revision intended to accomplish a reform, by assuming that we are questioning all of the statute and case law by relating it to the basics of the system, and not just correcting a few minor breakdowns that may have occurred. Thus this is an opportunity to modernize, to restate, and I think that is the spirit in which the President's Commission approached its definition of prior art (recommendation I) which I have done nothing but implement (H.R. 11447, sec. 100) in statutory language and I point out in my prepared statement that the very words that some people have found difficult, that is to say "made available to the relevant public," are already in the law, and I cite a district court decision,* in which the district judge in Chattanooga points out that, in considering what prior art is relevant, he will consider what would normally be looked to by the relevant public: that is to say the people interested, in that case in knitting machinery.

So much for the prior art. Next is the matter of first to file. Apparently there is a great difference of opinion about what is the first-to-file system, what it really means. Now, in the proposal (H.R. 11447, §§ 100(h), 102) which I have suggested for this subcommittee to consider, I go to first to file, and in order to make that workable and to meet the objections made, you must consider it in terms as well of the proposal (H.R. 11447, sec. 116) for preliminary disclosure. We go back to the position I understand to be advanced by the Commerce Department this morning. We are to have a system with first to invent, but he is only able to go back a year back of his filing date, so that might be called first-to-file minus one.

The only difference between that and what I propose is that we ask the inventor under a first-to-file system to put a 6-cent stamp on his proof that he would use to establish his 1-year date, and mail it into the Patent Office where it can be officially stamped, and then he has a year in which to do all this perfecting and developing and making the final filing, while if you use the other system, he does not do anything official, but when he comes to prove his early date, he is going to have the written proofs of concept, his laboratory notebooks, sketch pad and the like which he could have mailed to the Patent Office in the first place.

I submit, Mr. Chairman, that there is not any real difference and that from the point of view that you have heard so much, that a first-to-file system carried out in the spirit intended by the Commission, the President's Commission will accomplish everything that is said to be accomplished by first-to-invent system, if he could only go back 1 year. It is exactly the same thing.

Mr. BRENNAN. You strongly support that?

*Morpul, Inc. v. Crescent Hosiery Mills, 265 F. Supp. 279 (E. D. Tenn. 1967).

MR. MORTON. Yes, sir. I think that it would be a great thing specifically for small inventors and people who do not have the money and have not got the backing to have a complicated patent application prepared, and who indeed do not know what to keep in their notebooks now. In other words, it does not change the balance at all, but it enables I think the small inventor to nail his date down by mailing in the very pieces of paper he would rely on in an interference to prove that he was the first inventor, and then with this official dating to seek the financial backing necessary. I see no practical difference in the burden on him, and a great deal of administrative advantage.

Much is said, Mr. Chairman, about burdening the Patent Office, but I am sure the Commissioner will recall I was speaking about these proposals at one of the law schools here in town or at a meeting of a group from one of the law schools, and I pointed out that very likely he would have one of these macerating devices as big as the CIA has in which these preliminary disclosures which were never followed up would be destroyed, never having read them. They simply would not in fact burden anybody unless they became the basis for something that somebody thought was worth while.

The third point that is major in the proposals that I have made are that the United States go now to a deferred examination system (H.R. 11447, secs. 131, 132, 135). To my mind the deferred examination system is the easy way to accomplish what was intended to be accomplished by the publication patent bill (S. 1005, 89th Cong.) which was introduced through this subcommittee and committee in previous Congresses, that is to say, it eliminates the worthless defensive patenting effort that goes on, by protecting the person who has a fear that someone else will patent something he files, and then he defers the examination on it for a period of time. It is not worth examination, but he is nevertheless protected by his filing against the very things that cause people now to have defensive applications which have to be examined laboriously in the Patent Office, and have to go to allowance of a claim in order to serve to protect, the allowed claim being very often worthless.

Now, in order to sell "deferred" examination, I think of it in terms of "selective" examination, Mr. Chairman. We examine only the ones that are worth examining, either in the estimation of the industry which reads them when they are published, or in the estimate of the owner who is going to pay the fee, or in the estimate of the Patent Office, if it so cares to require examination.

Now, in my statement I mentioned Germany, Holland, and Australia. I find this morning on my desk information that the French Legislature has passed a bill which will have deferred examination in that rather important inventing country, and I think that this is a tribute to the fact that this is a workable system. I have very little doubt that when the Japanese get to wrestling with their backlog, which is much worse than ours, they too will go to deferred examination.

There are some other little things that I have inserted in the proposals that I make, which I heartily commend to the attention of this subcommittee. One of them (H.R. 11447, sec. 111) is to permit applications, which have heretofore been required by statute to be signed in person by the inventor under oath, and which have been administra-

tively required to be accompanied by a signed power of attorney individual in each case, to be signed by the attorney representing the applicant. I suggest that we can very easily, in these important matters, but no more important than civil actions, let the registered patent attorneys who are subject to discipline by the Commissioner of Patents sign on behalf of their clients. It has always seemed to me singularly anomalous that as a member of the Bar of Virginia I can commence an action in a Federal court for a very large amount on behalf of a client with no indication of my authority to do so but my own signature, but I cannot file an application for a patent for a client who may be in some foreign country or on a ship or something, without getting his personal signature. This is caused in part by the requirements of the statute, and I suggest that the subcommittee seriously consider the elimination of any such requirement, because I cannot see that it makes any sense.

Senator McCLELLAN. There is a little bit of difference. A court has more immediate control over a paper that might be filed without that authorization than a patent.

Mr. MORTON. I would hope that the disciplinary powers that are vested in the Commissioner of Patents would be strengthened, and that he would find that it were sufficient to enable him to control it.

Senator McCLELLAN. I think there is a little bit of difference. I am not arguing against your position now, your recommendation or suggestion at the moment, but I think there is a little difference in an attorney filing a pleading in a court without his client signing it.

Mr. MORTON. Well, when one has one's client's authority, but it may be obtained over the phone. I may illustrate, Mr. Chairman, a graphic example of the difficulty which the present practice needlessly brings about. We got a cable some while back from a Greek gentleman who had made an invention in the area of shipbuilding, and we were able to get the paper here only by employing one of the Pan-Am stewards as a courier, because it was useless for us to sign those papers. This would not have been true had he wished to bring a suit to avoid the running of the statute of limitations on a million dollar claim.

Senator McCLELLAN. That might be corrected by permitting counsel to file subject to confirmation within a reasonable time?

Mr. MORTON. Yes, sir.

Senator McCLELLAN. It could be corrected that way?

Mr. MORTON. That might very well solve the problem. The way my particular proposal solves it is to require that the person or persons named as inventors be served with a copy of the application so that they can comment if they care to.

There is another matter in the proposal that I make which differs sharply from all of the others. It (H.R. 11447, sec. 294(a)) eliminates the singling out of the presumption of validity from the other presumptions of administrative correctness. I do that because I want to strengthen the presumption of the validity of properly examined patents.

The present statute, Mr. Chairman, has a stated presumption of validity (35 U.S.C. § 282) but no other stated presumption of correctness. For some reason the draftsmen of S. 1042 put in three statements about presumption (S. 1042, §§ 137, 282, 148). I would propose to

eliminate all of these presumptions, including the one-sided one, and simply clearly state that the actions of the Patent Office are considered correct under the Administrative Procedure Act. This I believe would strengthen the presumption of validity.

There is one added reason for deferred examination which has not been adverted to here at all, and it does not involve matters of procedure or saving of time. It involves fairness to the applicant. This I would like to call to your attention, Mr. Chairman. The decisions of the Supreme Court in the recent plow and battery¹ cases clearly state that among the matters which must be considered by the courts in determining whether a claimed invention is or is not obvious are events which can only take place after the invention has been offered to the industry. They are such factors as impact on the industry, commercial success, replacing of what went before. These factors I submit often require time, and therefore to have too fast examination is going to result in improper decisions made before all the facts can have ripened.

If we have a system of deferred examination, this logical dilemma is avoided, and the examination can be called up to take place when the record has in fact, the relevant record has in fact, occurred. Too many people, I think, think, and in the latter part of the 19th century there was one Supreme Court decision that took the position, that the validity of a patent application, the invention claimed, could be determined in theory the instant it was filed, and that nothing that happened after that date could be relevant. We have been told clearly, in the recent decisions I adverted to, that this is not so, and that you really cannot tell whether an invention claimed is a patentable one the day the application is filed.

I am not the originator of that, as I am not the originator of much that I put into this proposal, and I have citation in my statement to where Judge Giles Rich has made precisely the same argument in the *George Washington Law Review*. Those are the major matters that I wanted to suggest deserve consideration when you are revising and reforming this important branch of the law.

Senator McCLELLAN. Thank you very much, Mr. Morton.

(The prepared statement of Mr. Morton follows:)

PREPARED STATEMENT OF W. BROWN MORTON, JR.

My name is W. Brown Morton, Jr. I am a resident of Alexandria, Virginia and a lawyer engaged in the private practice of patent, trademark and copyright law. I am no stranger to the Subcommittee since I have appeared before it a number of times in the past in various representative capacities. I wish to emphasize now that I am making my present appearance in an individual capacity and at the kind invitation of Senator Scott, to enable me to recommend to the Subcommittee its earnest consideration of certain of the principles of patent law reform embodied in House Bill H.R. 11447.

While H.R. 11447 was prepared by me as a scholarly exercise in connection with preparation for a class I give in Intellectual Property at the Law School of the University of Virginia, and was kindly introduced in the House by Representative Broyhill of Virginia on that account, I have had many collaborators in the drafting of this proposal. This collaboration has taken the form of long hours of reading preliminary drafts and many invaluable suggestions for their improvement from friends at the patent bar in various parts of the country. No one of my collaborators probably agrees with all of this bill, but all of them

¹ *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

² *United States v. Adams*, 383 U.S. 39 (1966).

have contributed to make it, I believe, a self-consistent, and, at least apparently, workable measure. I shall not name these collaborators less they mistakenly be attributed with the responsibility for any unpopular provisions of H.R. 11447, for all of which I accept responsibility.

A capsule description of H.R. 11447 is that it represents a sincere effort to implement soundly the major recommendations of the President's Commission which reported to President Johnson on November 17, 1966. In particular, it sprang from a desire to give vitality and specificity the statesmanlike general statements of the purpose and method of patent law reform by President Johnson in his letter of February 21, 1967, transmitting an Administration bill to Congress. This bill the President designated The Patent Reform Act of 1967 and it is pending before this Subcommittee as S. 1042, having been introduced by Senator McClellan *by request*.

I trust that, in view of the fact that this bit of proposed legislation was not drafted by Chairman McClellan and of the testimony already heard by this Subcommittee from representatives of the Executive Branch indicating a very substantial retreat from, and willingness to accept modification of, the language of S. 1042, I will be forgiven for characterizing it as a singularly wooden and grossly unscholarly bit of drafsmanship.

Both S. 1042 and H.R. 11447 accept the urging of the President's Commission, and of the President himself, that patent reform include an adoption of the first-to-file system to be made workable by a preliminary application system for the purpose of speeding up the public disclosure of technological information. While the overwhelming majority of the patent bar at the present time opposes this approach, I am convinced that a majority, at least, of the same patent bar, would recommend the adoption of H.R. 11447 if it were offered as the only alternative to S. 1042.

I believe that this Subcommittee has already received from the Administration a tabular comparison of H.R. 11447 with the recommendations of the President's Commission and with the other major patent reform bills now pending before Congress. I also believe that this Subcommittee will receive a revised tabulation prepared by the American Patent Law Association when its representative testifies before it at the current Hearing. I am, therefore, not attempting to add to the 'paper explosion' by preparing a similar parallel table on my own account. I will confine myself in this statement, and in the testimony which accompanies it, to highlighting what appear to me to be distinctive proposals of R.H. 11447. Many of these, I hope, will commend themselves to this Subcommittee for adoption in any patent reform legislation which its members come to mark up and present for eventual enactment.

A principal objective of H.R. 11447 was to safeguard the interests of those inventors and employers of inventors who have limited financial resources and who, in consequence, need to be able inexpensively and certainly to "stake their claim" in order to be able freely to seek the backing of capital without risk of loss of right through fraud or accident. The major way in which the scheme of H.R. 11447 differs from the scheme of S. 1042 is that it provides in chapter 12 for the immediate institution of a system of "deferred" examination. This system was inaugurated in Holland some years ago and has been adopted in a number of other countries, including Germany and Australia, and it will, no doubt, be adopted in many more. One principal reason for preferring such a system, better called, "selective" examination, over the so-called "full" or "indiscriminate" examination system at present employed in the United States, is that it eliminates the largely wasted effort of examining applications for patent on bright ideas which, upon mature thought, seem to have no practical value. However, the on-rush of the computer will unquestionably within the next few years permit very rapid completion of the search of documentary material phase of patent examination and this, without deferment of the evaluation phase, will in close cases sometimes result in gross injustice and loss of right.

As the Supreme Court pointed out in its recent landmark decisions of *Graham v. John Deere Co.*, 383 U.S. 1 (1966) and *United States v. Adams*, 383 U.S. 39 (1966), in order to determine whether an invention established to be *novel*, i.e. an invention which has passed the computer search, is a *patentable* one, i.e. one not obvious to the man skilled in the art at the time it was made, evidence must often be considered that can come into being only after the invention has been offered publicly to the relevant industry. Judge Giles S. Rich of the Court of Customs and Patent Appeals has stated this reason for deferred examination in these words: "Under the proposed legislation, an applicant is very unlikely to have evidence of commercial success, adoption by the industry, replacement of

other inventions, etc., in time to be of any use in establishing nonobviousness of a new invention by the kind of evidence the Supreme Court says has relevance. The "rule of doubt" and slower prosecution gave him this chance. Deferred examination should be instituted now, if we are to have the other laws proposed, in order to provide the time in which to collect the relevant evidence of unobviousness. Otherwise many applicants will be hustled into sure defeat." (35 Geo. Wash. L. Rev., 648 (May 1967).)

Another principal difference between the first to file system of H.R. 11447 and that of S. 1042 is seen by comparison of the respective provisions for preliminary filing. This is the provision upon which the small inventor must rely to be able to stake out a claim in a relatively certain manner without incurring substantial legal fees at a time when his invention is just a-borning. § 116 of H.R. 11447 achieves this by equating the standard of disclosure which an inventor must make to secure his claim in a preliminary application to the standard of disclosure which would defeat him if in the prior art. This is almost precisely the standard which is now employed for effective documentary proof of conception now accepted, but not upon simple filing, but only as incident of the almost universally condemned and notoriously costly interference practice of the present day. In fact, Judge Rifkind Co-Chairman of the President's Commission, in an address to The Association of The Bar of The City of New York, stated that it was his concept of the preliminary disclosure practice intended by that Commission that an inventor need do no more than sign and mail Xerox copies of such documentary material, for example, notebook pages, to the Patent Office to obtain for himself a certain filing date. In contrast to this, S. 1042, § 111 apparently requires a disclosure in all of the written detail necessary at the present time in a formal patent application. Needless to say, this loads the dice heavily in favor of those inventors, or employers of inventors, who have the largest stable of competent patent application drafting talent at their command. It will be observed that the more liberal provisions of H.R. 11447 introduce no new concept into the law, but merely apply the existing standards of disclosure that must be met to negative patentability to the disclosure that will be sufficient to establish a preliminary filing date.

Another distinctive approach of H.R. 11447, believed to be of benefit to inventors of all sorts, but particularly to so-called small inventors, is the liberal provision for elimination of needless formalities. Thus, it is contemplated preliminary disclosures may be effectively filed on behalf of a named applicant either, signed by a person regularly authorized to practice before the Patent Office or by any person authorized by such an applicant who cares to set forth his authority under oath. Similarly, complete applications can be signed on behalf of the applicant by any person authorized to practice before the Patent Office. There is no need for the authority of a registered person, subject to discipline by the Commissioner of Patents, to have his authority attested by a special and formal power of attorney signed in each application by the applicant any more than there is the need for pleadings filed on behalf of plaintiff in an ordinary civil action to be accompanied by a formal power of attorney. I know of no basis for any supposition that the persons registered to practice before the Patent Office are less capable of discharging their professional responsibility in this respect than are the ordinary attorneys at law licensed by the fifty States to act in civil actions. Inventors' rights are fully protected by the requirement that the persons believed by the applicant to be the inventors be named (§ 115) and served with a copy of the statement of the applicant alleging his relation to them and by the further provision of § 261 that inventions are the property of their inventors when made.

Many people believe that the last sentence of § 112 of H.R. 11447 should be incorporated in any revision of patent law to prevent the forfeiture of right now too frequently caused by hyper technical claim language interpretation.

The vexed question of whether or not to permit foreign prior art, other than that contained in a printed publication, to be effective has resulted in a middle ground H.R. 11447 that is believed to be more equitable than the flat adoption of universal prior art in S. 1042. The definition of prior art in H.R. 11447 merely requires that the information said to be prior art have been known at the relevant date to the persons skilled in the art in the United States, or have then been available to them as a reasonable consequence of a disclosure in tangible form or a use or placing on sale anywhere in the world. This does not introduce "availability" as a new concept in the law, but was derived by me from an opinion of the Honorable Frank W. Wilson, United States District Judge for the East-

ern District of Tennessee, who pointed out in *Morpul, Inc. v. Crescent Hosiery Mills*, 265 F. Supp. 279, 303 (E.D. Tenn. 1967) :

"The statutory requirement of non-obviousness as set forth in 35 U.S.C. § 103 requires inquiry be made into (a) the level of ordinary skill of the artisan in the pertinent art or technology must be established to evaluate whether the claimed subject matter is obvious or unobvious *at the time the invention was made* (Pertinent art, as hereinabove referred to, is that art to which one can reasonably be expected to look for a solution to the problem which the patented device attempts to solve); (b) the scope and content of the prior art must be investigated; and (c) the differences and similarities must be evaluated between the prior art and the claimed subject matter at issue."

Surely a person working in the perfume industry for example, in the United States could reasonably be expected to inform himself of what was publicly available to interested persons in France, a well-known center of that industry, whether or not the knowledge had been incorporated in a printed publication, and the person who takes the trouble so to inform himself should not be foreclosed from using the fruits of his investigation because some less enterprising would-be patentee had not taken the same trouble, but had filed a patent application directed to French common knowledge. Our present law, on the other hand, accepts the proposition that a foreign printed publication somehow, from the mere fact of its supposed existence in however obscure and unindexed a file in the remotest foreign country should have a weight in the evaluating of a United States patent denied to a public use which was common knowledge in Toronto. No rational basis appears to exist for preferring present law to H.R. 11447. The test of H.R. 11447 may be stated: Is an inventor's disclosure in fact bringing something to United States industry heretofore not available to it? This is, it seems to me, the rational test suggested by the President's Commission. Nor is there basis in fact for the oft-stated supposition that the common law proof of the authenticity of an allegedly anticipating, but wholly obscure foreign publication is going to be any less expensive or any more free from the possibility of fraud than the proof of the preexistence of a foreign knowledge sufficiently widespread to be said to have been available to the man in the art in the United States.

Minor matters long overdue in patent law reform are the revision of the rights of joint owners of patents contained in H.R. 11447, § 262 and the revision of the consequence of failure to mark patented articles with the statutory notice in H.R. 11447, § 287.

Time and space would not permit of going into all of the drafting improvements and streamlined procedures provided in H.R. 11447, but it would be remiss of me not to call the Subcommittee's attention to the provisions of § 294, which expressly confer upon the Patent Office work product a presumption of administrative correctness in language keyed to that employed in Title 5, United States Code. This takes the place of the multiple and possibly confusing and certainly unclear provisions about presumptions and burdens in S. 1042. Further, § 294 goes along with the President's Commission in eliminating the right of a patentee to continue litigation after a final determination of invalidity, but protects by a provision enabling him, in a limited manner, to extend the estoppel effect of a finding of validity on a given record to any person subject to service of process of any court of the United States.

There remains only for comment that H.R. 11447 does not adopt the approach of S. 1042 in providing appeals from the Court of Customs and Patent Appeals to the United States Court of Appeals for the District of Columbia Circuit, but instead transfers appeals from the United States District Court of the District of Columbia in civil actions in Patent Office patent cases to the Court of Customs and Patent Appeals. Further, H.R. 11447 adopts in full the view of the President's Commission in respect of infringement by importation, declining the grudging and illogical concession made to that recommendation in S. 1042.

I thank the Subcommittee for the opportunity to present this statement, to testify in support of it, and I hope to respond orally to interested questions from the Subcommittee members.

I shall be happy to respond fully and in writing, or orally, to any questions which the Subcommittee may later wish to put, or have put, to me on its behalf.

[H.R. 11447 90th Cong., first sess.]

A BILL For the promotion of the progress of the useful arts by the general revision of the Patent Laws, title 35 of the United States Code, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That title 35 of the United States Code, entitled "Patents", is hereby amended in its entirety to read as follows:

"TITLE 35—PATENTS

"PART	Sec.
"I. PATENT OFFICE-----	1
"II. PATENTABILITY OF INVENTIONS AND GRANT OF PATENTS-----	100
"III. PATENTS AND PROTECTION OF PATENT RIGHTS-----	251

"PART I—PATENT OFFICE

"CHAPTER	Sec.
"1. ESTABLISHMENT, OFFICERS, FUNCTIONS-----	1
"2. PROCEEDINGS IN THE PATENT OFFICE-----	21
"3. PRACTICE BEFORE THE PATENT OFFICE-----	31
"4. PATENT FEES-----	41

"Chapter 1.—ESTABLISHMENT, OFFICERS, FUNCTIONS

"Sec.	
"1. Establishment.	
"2. Seal.	
"3. Officers and employees.	
"4. Restrictions on officers and employees as to interest in patents.	
"5. Bond of Commissioner and other officers.	
"6. Duties of Commissioner.	
"7. Board of Appeals.	
"8. Library.	
"9. Classification of search material.	
"10. Certified copies of records.	
"11. Publications.	
"12. Research and studies.	
"13. Advisory Council on the patent system.	

"§1. Establishment

"The Patent Office shall be an Office in the Department of Commerce, where records, books, drawings, specifications, and other papers and things pertaining to patents and to trademark registrations shall be kept and preserved, except as otherwise provided by law.

"§2. Seal

"The Patent Office shall have a seal with which letters patent, certificates of trademark registrations, and papers issued from the Office shall be authenticated.

"§3. Officers and employees

"(a) There shall be in the Patent Office a Commissioner of Patents, one first assistant administrator, two other assistant commissioners, and not more than twenty-four examiners-in-chief. The assistant commissioners shall perform the duties pertaining to the office of Commissioner assigned to them by the Commissioner. The first assistant commissioner, or, in the event of a vacancy in that office, the assistant commissioner senior in date of appointment, shall fill the office of Commissioner during a vacancy in that office until a Commissioner is appointed and takes office. The Commissioner of Patents shall be appointed by the President, by and with the advice and consent of the Senate. The Secretary of Commerce, upon the nomination of the Commissioner in accordance with law, shall appoint all other officers and employees.

"(b) The Secretary of Commerce may vest in himself the functions of the Patent Office and its officers and employees specified in this title and may from time to time authorize their performance by any other office or employee.

"(c) The Secretary of Commerce is authorized to fix the per annum rate of basic compensation of each examiner-in-chief in the Patent Office at not in excess of the maximum scheduled rate provided for positions in grade 17 of the General Schedule of positions referred to in section 5104 of title 5, United States Code, and of the assistant commissioners at not in excess of the rate provided for positions in grade 18.

"§ 4. Restrictions on officers and employees as to interest in patents

"Officers and employees of the Patent Office shall be incapable, during the period of their appointments and for one year thereafter, of applying for a patent and of acquiring, directly or indirectly, except by inheritance or bequest, any patent or any right or interest in any patent, issued or to be issued by the Office. In patents applied for thereafter they shall not be entitled to any priority date earlier than one year after the termination of their appointment.

"§ 5. Bond of Commissioner and other officers

"The Commissioner and such other officers as he designates, before entering upon their duties, shall severally give bond, with sureties, the former in the sum of \$10,000, and the latter in sums prescribed by the Commissioner, conditioned that they shall faithfully discharge their respective duties and that they shall render to the proper officers of the Treasury a true account of all money received by virtue of their offices.

"§ 6. Duties of Commissioner

"The Commissioner, under the direction of the Secretary of Commerce, shall superintend or perform all duties required by law respecting the granting and issuing of patents and the registration of trademarks: and he shall have charge of property belonging to the Patent Office. He may establish regulations, not inconsistent with law, for the conduct of proceedings in the Patent Office. Such regulations and all other regulations issued pursuant to this title shall be subject to the approval of the Secretary of Commerce.

"§ 7. Board of Appeals

"(a) The Commissioner, the assistant commissioners, and the examiners-in-chief shall constitute a Board of Appeals in the Patent Office. The examiners-in-chief shall be persons of competent legal knowledge and scientific ability, who shall be appointed under the classified Civil Service.

"(b) The Board of Appeals shall:

"(1) Review adverse decisions of the examiners upon applications for patents as provided in section 136 of this title.

"(2) Reconsider determinations made by the Patent Office pursuant to section 257 of this title.

"(3) Perform the functions specified as being performed by a Board of Patent Interferences in Public Law 593, Eighty-second Congress (ch. 950, 66 Stat. 792, section 1), and in other Acts of Congress and when performing said function shall constitute a Board of Patent Interferences.

"(c) Each appeal or other action shall be heard or considered by at least three members of the Board of Appeals. The Board of Appeals has sole power to grant rehearings.

"(d) Whenever the Commissioner considers it necessary to maintain the work of the Board of Appeals current, he may designate any patent examiner of the primary examiner grade or higher having the requisite ability, to serve as acting examiner-in-chief for periods not exceeding six months each. An examiner so designated shall be qualified to act as a member of the Board of Appeals. Not more than one acting examiner-in-chief shall be a member of the Board of Appeals hearing an appeal or considering a case. The Secretary of Commerce is authorized to fix the per annum rate of basic compensation of each acting examiner-in-chief in the Patent Office at not in excess of the maximum scheduled rate provided for positions in grade 16 of the General Schedule of positions referred to in section 5104 of title 5, United States Code. The per annum rate of basic compensation of each acting examiner-in-chief shall be adjusted, at the close of the period for which he was designated to act as examiner-in-chief, to the per annum rate of basic compensation which he would have been receiving at the close of such period if such designation had not been made.

"§ 8. Library

"The Commissioner shall maintain a library of scientific and other works and periodicals, both foreign and domestic, in the Patent Office to aid the officers in the discharge of their duties.

"§ 9. Classification of search material

"The Commissioner shall maintain a classification by subject matter of published specifications of United States patents and applications and of such other disclosures in tangible form of scientific and technical information as may be necessary or practicable, in such form as he may determine from time to time

best suited, for the purpose of determining with readiness and accuracy the novelty of inventions for which applications for patent are filed.

"§ 10. Certified copies of record

"The Commissioner may, upon payment of the prescribed fee, furnish certified copies of records of the Patent Office to persons entitled thereto.

"§ 11. Publications

"(a) The Commissioner may publish, in such formats as he shall determine most suitable under applicable laws and regulations, the following:

"(1) Patent applications and parts thereof, subject to the provisions of this title, patent abstracts and patents, including specifications and drawings, together with copies of the same.

"(2) Certificates of trademark registrations, including statements and drawings, together with copies of the same.

"(3) The Official Gazette of the United States Patent Office.

"(4) Annual indices of patents and patentees, published applications and applicants, and of trademarks and registrants.

"(5) Annual volumes of decisions in patent and trademark cases.

"(6) Classification manuals and indices of the classifications of patents.

"(7) Pamphlet copies of the patent laws and rules of practice, laws and rules relating to trademarks and circulars or other publications relating to the business of the Office.

"(b) The Commissioner may exchange any of the publications specified in subsection (a) of this section for publications desirable for the use of the Patent Office.

"§ 12. Research and studies

"(a) The Commissioner shall conduct a program of research and development to improve and expedite the handling, classification, storage, and retrieval of patents and other scientific and technical information.

"(b) The Commissioner, in consultation with the Advisory Council established pursuant to section 13 of this title, shall conduct and sponsor studies to aid in analyzing the contemporary needs of the patent system and in evaluating the effectiveness of the patent system in serving the public interest.

"§ 13. Advisory Council on the Patent System

(a) There is hereby established an Advisory Council on the Patent System (referred to in this section as the 'Council') of not less than twelve nor more than twenty-four members to be appointed by the Secretary of Commerce from the general public, without regard to the civil service laws, and to consist of persons having experience with, and representative of, the various interests affected by the patent system. The Secretary of Commerce shall designate the Chairman of the Council and set the terms of the members.

"(b) It shall be the duty of the Council, on a continuing basis, to evaluate the effectiveness of the patent system in serving the public interest; to analyze the contemporary conditions and needs of the patent system; to study and appraise the methods and operations of the United States Patent Office including the quality of United States patents, the procedures and timing of publication of pending applications and the needs of examination; and to report to the Secretary of Commerce its conclusions and recommendations.

"(c) The Secretary of Commerce shall furnish to the Council an executive secretary and such professional, secretarial, clerical, and other services and facilities as are necessary to the conduct of its business.

"Chapter 2.—PROCEEDINGS IN THE PATENT OFFICE

"Sec.

"21. Day for taking action falling on Saturday, Sunday, or holiday.

"22. Form of papers filed.

"23. Testimony in Patent Office cases.

"24. Subpenas, witnesses.

"25. Oath and declaration in lieu of oath.

"26. Effect of defective execution.

"§ 21. Day for taking action falling on Saturday, Sunday, or holiday

"When the day, or the last day, for taking any action or paying any fee in the United States Patent Office falls on Saturday, Sunday, or a holiday within the District of Columbia, the action may be taken, or the fee paid, on the next succeeding secular or business day.

"§ 22. Form of papers filed

The Commissioner may, by rule, prescribe the form, and the number and manner of reproduction of copies, of papers filed in the Patent Office.

"§ 23. Testimony in Patent Office cases

"The Commissioner may establish rules for taking affidavits and depositions required in cases in the Patent Office. Any officer authorized by law to take depositions to be used in the courts of the United States, or of the State where he resides, may take such affidavits and depositions.

"§ 24. Subpenas, witnesses

"The clerk of any United States court for the district wherein testimony is to be taken for use in any matter pending in the Patent Office, shall, upon the application of any party thereto, issue a subpoena for any witness residing or being within such district, commanding him to appear and testify before an officer in such district authorized to take depositions and affidavits, at the time and place stated in the subpoena. The provisions of the Federal Rules of Civil Procedures relating to the attendance of witnesses and to the production of documents and things shall apply to contested cases in the Patent Office.

"Every witness subpoenaed and in attendance shall be allowed the fees and traveling expenses allowed to witnesses attending the United States district courts.

"A judge of a court whose clerk issued a subpoena may enforce obedience to the process or punish disobedience as in other like cases, on proof that a witness, served with such subpoena, neglected or refused to appear or to testify. No witness shall be deemed guilty of contempt for disobeying such subpoena unless his fees and traveling expenses in going to, and returning from, and one day's attendance at the place of examination, are paid or tendered him at the time of the service of the subpoena; nor for refusing to disclose any secret matter except upon appropriate order of the court which issued the subpoena.

"§ 25. Oath and declaration in lieu of oath

"(a) An oath to be filed in the Patent Office may be made before any person within the United States authorized by law to administer oaths or, when made in a foreign country, before any diplomatic or consular officer of the United States authorized to administer oaths, or before any officer authorized to administer oaths in the foreign country in which the applicant may be, whose authority shall be proved by certificate of a diplomatic or consular officer of the United States, and such oath shall be valid if it complies with the laws of the State or country where made.

"(b) The Commissioner may by rule prescribe that any document to be filed in the Patent Office and which is required by any law, rule, or other regulation to be under oath may be subscribed with a written declaration in such form as the Commissioner may prescribe, such declaration to be in lieu of the oath otherwise required.

"(c) Whenever such written declaration is used, the document must warn the declarant that willful false statements and the like are subject to punishment including fine or imprisonment, or both.

"§ 26. Effect of defective execution

"Any document to be filed in the Patent Office and which is required by any law, rule, or other regulation to be executed in a specified manner may be provisionally accepted by the Commissioner despite a defective execution, provided a properly executed document is submitted within such time as may be prescribed.

"Chapter 3.—PRACTICE BEFORE THE PATENT OFFICE

"Sec.

"31. Regulations for agents and attorneys.

"32. Suspension or exclusion from practice.

"33. Unauthorized representation as practitioner.

"§ 31. Regulations for agents and attorneys

"The Commissioner, subject to the approval of the Secretary of Commerce, may prescribe regulations governing the recognition and conduct of agents, attorneys, or other persons representing applicants or other parties before the Patent Office, and may require them, before being recognized as representatives of applicants or other persons, to show that they are of good moral character and reputation and are possessed of the necessary qualifications to render to appli-

cants or other persons valuable service, advice, and assistance in the presentation or prosecution of their applications or other business before the Office.

"§ 32. Suspension or exclusion from practice

"The Commissioner may, after notice and opportunity for a hearing, suspend or exclude, either generally or in any particular case, from further practice before the Patent Office, any person, agent, or attorney shown to be incompetent or disreputable, or guilty of gross misconduct, or who does not comply with the regulations established under section 31 of this title, or who shall, by word, circular, letter, or advertising, with intent to defraud in any manner, deceive, mislead, or threaten any applicant or prospective applicant, or other person having immediate or prospective business before the Office. The reasons for any such suspension or exclusion shall be duly recorded. The United States District Court for the District of Columbia, under such conditions and upon such proceedings as it by its rules determines, may review the action of the Commissioner upon the petition of the person so suspended or excluded.

"§ 33. Unauthorized representation as practitioner

"Whoever, not being recognized to practice before the Patent Office, holds himself out or permits himself to be held out as so recognized, or as being qualified to prepare or prosecute applications for patent, shall be fined not more than \$1,000 for each offense.

"Chapter 4.—PATENT FEES

"Sec.

"41. Patent fees.

"42. Payment of patent fees; return of excess amounts.

"§ 41. Patent fees

"(a) The Commissioner shall prescribe by regulation the charges to be made for copies of records and publications and for services furnished by the Patent Office other than pursuant to part II of this title designed to effect a recovery in the range of 90 to 110 per centum of the cost to the Patent Office of the copies and services furnished.

"(b) The Commissioner shall prescribe by regulation the fees to be paid in connection with the filing and examination of patent applications, the issuance of patents, and other matters set forth in part II of this title as requiring a fee designed, together with the fees prescribed pursuant to subsection (a) of this title, to effect an overall recovery in the range of 65 to 75 per centum of the costs of operation of the Patent Office.

"(c) The Commissioner shall prescribe by regulation, consistent with the provisions of this title, the time for payment of the fees to be paid under this title. If payment of the fees in connection with the examination, publication or issuance of a patent application are not timely made, the application shall be regarded as abandoned. An applicant shall be given at least thirty days following notice of a fee due pursuant to section 123 or 151 of this title in which to pay the fee. Errors in payment of fees may be rectified in accordance with regulations prescribed by the Commissioner.

"(d) The fees established under the authority of this section shall apply to any other Government department or agency, or officer thereof, except that the Commissioner may waive the payment of any fee for services or materials in cases of occasional or incidental requests by a Government department or agency, or officer thereof.

"(e) The Commissioner may prescribe by regulation when copies of Patent Office records and publications may be provided without charge or in exchange for records or publications of foreign countries.

"§ 42. Payment of fees; return of excess amounts

"All fees shall be paid to the Commissioner, who shall deposit the same in the Treasury of the United States in such manner as the Secretary of the Treasury directs and the Commissioner may refund any sum paid by mistake or in excess of the fee required.

“PART II—PATENTABILITY OF INVENTIONS AND GRANTS OF PATENTS

“CHAPTER	Sec.
“10. PATENTABILITY OF INVENTIONS-----	100
“11. APPLICATION FOR PATENT-----	111
“12. REVIEW AND EXAMINATION OF APPLICATION-----	131
“13. REVIEW OF PATENT OFFICE DECISIONS-----	141
“14. ISSUE OF PATENT-----	151
“15. PLANT PATENTS-----	161
“16. DESIGN-----	171
“17. SECRECY OF CERTAIN INVENTIONS AND FILING APPLICATIONS ABROAD-----	181

“Chapter 10.—PATENTABILITY OF INVENTIONS

“Sec.

“100. Definitions.

“101. Right to patent; inventions patentable.

“102. Conditions for patentability; novelty and nonobvious subject matter.

“103. Conditions for patentability; recovery of right to patent.

“§ 100. Definitions

“When used in this title unless the context otherwise indicates—

“(a) The term ‘invention’ means invention or discovery.

“(b) The term ‘process’ means process, art or method and includes a new use of a known process, machine, manufacture, composition of matter, or material.

“(c) The terms ‘United States’ and ‘this country’ mean the United States of America, its territories and possessions, and the Commonwealth of Puerto Rico and vessels, aircraft, and vehicles of the United States wherever located.

“(d) The term ‘applicant’ means any person who has filed or who owns an application for patent as provided in this title.

“(e) The term ‘professional’ denotes a person having ordinary skill in the art to which the subject matter of an invention pertains.

“(f) The term ‘knowledge of the art’ shall comprise any information known to the professionals in an art in the United States or available to those professionals as a reasonable consequence of a disclosure in a tangible form or of a use or a placing on sale anywhere in the world.

“(g) The term ‘effective filing date’ shall constitute the date upon which a complete United States patent application was filed or the earliest date upon which any United States or foreign application referred to therein and forming the basis for any valid claim of priority therefor was filed, whichever is earlier. A complete application or the resulting patent may contain separate claims for subject matter having different effective filing dates.

“(h) The term ‘prior art’ shall comprise the knowledge of the art prior to the effective filing date of a patent application, and a disclosure in a United States patent or published complete application shall constitute prior art as of its effective filing date.

“(i) The term ‘patentee’ includes not only the person to whom the patent is issued but also the successors in title to such person.

“(j) The term ‘useful’ shall include, but shall not be limited to, utility in agriculture, commerce, industry, health, or research.

“§ 101. Right to patent: inventions patentable

“Any invention of a new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may be the subject of a patent granted pursuant to the conditions and requirements of this title.

“§ 102. Conditions for patentability; novelty and nonobvious subject matter

“A person claiming ownership of an invention shall be entitled to a patent therefor unless—

“(a) The invention was disclosed in the prior art, or

“(b) Although not identically disclosed in the prior art, the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious on the effective filing date of the patent application to a professional. Patentability shall not be negated by the manner in which the invention was made.

“§ 103. Conditions for patentability; recovery of right to patent

“Information in the prior art solely as a consequence of disclosure derived from the applicant for a patent or his predecessor in title to the invention shall not negative the patentability of the invention if otherwise patentable upon a complete application filed within twelve months after such disclosure.

"Chapter 11.—APPLICATION FOR PATENT

"Sec.

"111. Application for patent.

"112. Complete specification.

"113. Drawings.

"114. Models, specimens.

"115. Statement of claim of ownership.

"116. Preliminary disclosure.

"117. Benefit of earlier filing date in foreign country; right of priority.

"118. Benefit of earlier filing date in the United States.

"119. Divisional applications.

"120. Confidential status, publication, and abandonment of applications.

"§ 111. Application for patent

"Application for patent shall be made in writing to the Commissioner by a person claiming ownership of the invention. Such application, if a complete application, shall include: (1) a complete specification as prescribed by section 112 of this title; (2) a drawing as prescribed by section 113 of this title; and (3) a statement of claim of ownership as prescribed by section 115 of this title. The complete application must be signed by the applicant or by a person regularly authorized to practice before the Patent Office on behalf of applicant, and accompanied by the fee required by law. Such application, if a preliminary application, shall include (1) a preliminary disclosure as prescribed by section 116 of this title and (2) a statement of claim of ownership as prescribed by section 115 of this title. The preliminary application must be signed by the applicant, or by any person authorized to act on his behalf who shall, unless he is a person regularly authorized to practice before the Patent Office, state under oath the source of his authority, and accompanied by the fee required by law.

"§ 112. Complete specification

"The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any professional to make and use the same, and shall set forth the best mode then contemplated by applicant of carrying out the invention.

"The specification shall conclude with one basic claim and such subordinate claims as may be necessary or proper particularly to point out and distinctly claim the subject matter which the applicant desires to secure by letters patent. The basic claim shall be written in independent form and the subordinate claims in dependent form, and claims in dependent form shall be construed to include all the limitations of a claim incorporated by reference into the dependent claim.

"An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. A claim shall be construed to preserve its validity and to secure to the patentee any patentable invention disclosed in the specification and within the reasonable intendment of the claim, as the specification and claim would be understood by a professional.

"§ 113. Drawings

"When the nature of the case admits, the applicant shall furnish a drawing with the complete application.

"§ 114. Models, specimens

"The Commissioner may require the applicant to furnish a model of convenient size to exhibit advantageously the several parts of his invention.

"When the invention relates to a composition of matter, the Commissioner may require the applicant to furnish specimens or ingredients for the purpose of inspection or experiment.

"§ 115. Statement of claim of ownership

"A statement of claim of ownership shall set forth (1) the name of applicant; (2) the citizenship, domicile, and post office address of applicant; (3) the place or places at which the invention was made; (4) the person or persons believed to have made the invention; and (5) the basis upon which the applicant claims to have succeeded to the rights of each person named as having made the invention. The applicant shall cause a copy of the statement of claim of ownership to be served promptly upon each person named therein in any manner sufficient to effect service of process under rule 4 of the Federal Rules of Civil Procedure, and such service may be made by any person other than applicant who is not less

than eighteen years of age. Proof of service shall be filed with the Commissioner.

"No error made in the naming of the persons believed to have made the invention shall affect the validity of the application or of a patent issued thereon. The title to an application and to a patent issued thereon shall be determined as prescribed in chapter 26 of this title.

"§ 116. Preliminary disclosure

"The disclosure shall contain a written description of the invention in terms sufficient to inform a professional of the nature thereof and to enable him to evaluate its operability. A disclosure which if in the prior art would defeat the patentability of the invention under section 102 of this title shall be a sufficient disclosure thereof for the purposes of this section 116.

"§ 117. Benefit of earlier filing date in foreign country; right of priority

"An application for patent for an invention filed in this country by any person who has, or whose legal representatives or assigns have, previously regularly filed an application for a patent for the same invention in a foreign country which affords similar privileges in the case of applications filed in the United States or to citizens of the United States, shall have the same effect as the same application would have if filed in this country on the date on which the application for patent for the same invention was first filed in such foreign country, if the application in this country is filed within twelve months from the earliest date on which such foreign application was filed.

"No application for patent shall be entitled to this right of priority unless a claim therefor and a certified copy of the original foreign application, specification and drawings upon which it is based are filed in the Patent Office before the patent is granted, or at such time during the pendency of the application as required by the Commissioner not earlier than six months after the filing of the application in this country. Such certification shall be made by the patent office of the foreign country in which filed and show the date of the application and of the filing of the specification and other papers. The Commissioner may require a translation of the papers filed if not in the English language and such other information as he deems necessary.

"In like manner and subject to the same conditions and requirements, the right provided in this section may be based upon a subsequent regularly filed application in the same foreign country instead of the first filed foreign application, provided that any foreign application filed prior to such subsequent application has been withdrawn, abandoned, or otherwise disposed of, without having been laid open to public inspection and without leaving any rights outstanding, and has not served, nor thereafter shall serve, as a basis for claiming a right of priority.

"§ 118. Benefit of earlier filing date in the United States

"A complete application for patent for an invention disclosed in the manner provided by section 116 of this title in a complete or a preliminary application previously filed in the United States by the same applicant or by a person through whom an applicant claims ownership shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or publication or abandonment of or termination of proceedings on the first application or on an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain a specific reference to the earlier application.

"§ 119. Divisional applications

"If two or more separately patentable inventions are claimed in one complete application, the Commissioner may require the application to be restricted to one of the inventions. If the other invention is made the subject of a divisional complete application which complies with the requirements of section 118 of this title it shall be entitled to the benefit of the filing date of the original application. A patent issuing on an application with respect to which a requirement for restriction under this section has been made, or on an application filed as a result of such a requirement, shall not be used as a reference either in the Patent Office or in the courts against a divisional application or against the original application or any patent issued on either of them, if the divisional application is filed before the issuance of the patent on the other application. The validity of a patent shall not be questioned for failure of the Commissioner to require the application to be restricted to one invention.

"§ 120. Confidential status, publication, and abandonment of applications

"(a) Applications for patents, unless laid open to public inspection under the provisions of this section, shall be kept in confidence by the Patent Office and no information concerning the same given without authority of the owner unless necessary to carry out the provisions of any Act of Congress or in such special circumstances as may be determined by the Commissioner.

"(b) All complete applications for patents not abandoned and not the subject of a secrecy order under chapter 17 of this title, shall be laid open to public inspection at the request of the applicant or upon receipt of a demand for examination under section 132 of this title or eighteen months after their effective filing date, whichever is earlier, and shall be published as prescribed in section 11 of this title promptly thereafter. The Commissioner shall delete from the text of any application laid open to public inspection or published as prescribed in this section all scandalous matter and may condense or rephrase the text to eliminate therefrom repetition or prolixity without altering the substance of the disclosure.

"(c) Any patent application that has not been laid open to public inspection may be abandoned by a written declaration of abandonment signed by the applicant or on his behalf by a person authorized to practice before the Patent Office stating an intention to abandon the application without leaving any rights outstanding and that the application has not served and will not thereafter serve as a basis for claiming a right of priority anywhere.

"(d) Abandonment of an application for patent does not of itself establish abandonment of an invention disclosed therein.

"Chapter 12.—REVIEW AND EXAMINATION OF APPLICATION

"Sec.

"131. Prepublication classification and review.

"132. Examination of application.

"133. Notice of rejection; reexamination.

"134. Procedure to determine recovery of right to patent.

"135. Time for prosecuting application.

"136. Appeal to Board of Appeals.

"137. Citations in aid of examination.

"138. Examination of related applications.

"§ 131. Prepublication classification and review

"The Commissioner shall promptly cause each complete application to be classified according to the classification maintained pursuant to section 9 of this title and reviewed as to formal matters and to ascertain the text thereof to be laid open to public inspection pursuant to section 120 of this title and shall notify the applicant of the results of the classification and review, stating the reasons therefor. If after receiving such notice, the applicant timely requests re-review, with or without amendment, the application shall be re-reviewed, but the laying open of the application shall not be delayed on account of re-review. A request for re-review shall be timely if received by the Commissioner with a demand for examination by the applicant or within three months after a demand for examination by another. No amendment shall introduce new matter into the disclosure of the invention.

"§ 132. Examination of application

"Upon receipt of a demand therefor from any person, accompanied by the fee prescribed by law, within seven years of the date a complete application is laid open to public inspection, the Commissioner shall cause an examination to be made of the complete application and the claimed new invention. If on such examination it is determined that the applicant is entitled to a patent under the law, the Commissioner shall issue a patent therefor as hereinafter provided.

"§ 133. Notice of rejection; reexamination

"Whenever, on examination, any claim of a complete application is rejected, or any objection or requirement made, the Commissioner shall notify the applicant thereof, stating the reasons therefor, together with such information and references as may be useful in judging the propriety of continuing the prosecution of the application. If after receiving such notice, the applicant requests reexamination, with or without amendment, the application shall be reexamined. No amendment shall introduce new matter into the disclosure of the invention.

“§ 134. Procedure to determine recovery of right to patent

“Whenever, on examination, any claim of a complete application is rejected, or any objection or requirement made, based upon information in the prior art as a consequence of a disclosure made within twelve months prior to the filing of the complete application, and the applicant, in his request for reexamination, claims the benefit of section 103 of this title, the applicant shall set forth in detail the grounds for his claim together with the names and addresses of those persons believed by him to have knowledge of the facts relevant to his claim, together with the fee prescribed by law, and prepayment of a deposit sufficient to cover the costs, fees and expenses involved, and the Commissioner shall by service of written interrogatories pursuant to Rule 31 of the Federal Rules of Civil Procedure require such of those persons as applicant elects to rely upon to give evidence by deposition under oath concerning such facts. Reexamination shall include an express ruling on the sufficiency of applicant's claim, stating the reasons therefor.

“§ 135. Time for prosecuting application

“(a) Upon failure of the applicant to claim the priority of a preliminary application in a complete application filed within one year after the filing of the preliminary application the preliminary application shall become abandoned.

“(b) Unless a demand for examination of a complete application is received by the Commissioner within seven years after the application is laid open to public inspection the application shall become abandoned.

“(c) Upon failure of the applicant to prosecute a published and pending application within six months after any action therein, of which notice has been given or mailed to the applicant, or within such shorter time, not less than thirty days, as fixed by the Commissioner in such action, the application shall be regarded as abandoned by the parties thereto, unless it be shown to the satisfaction of the Commissioner that such delay was unavoidable.

“§ 136. Appeal to Board of Appeals

“An applicant for a patent, any of whose claims has been twice rejected, may appeal from the decision of the primary examiner to the Board of Appeals, having once paid the fee for such appeal.

“§ 137. Citations in aid of examination

“(a) Any person may, with or without disclosure of his identity, at any time notify the Commissioner of prior art which may have a bearing on the patentability of a specified published and pending application, without requesting the examination thereof, with or without written explanation of the pertinency of the prior art, and the Commissioner shall cause such notice and explanation, if any, to be placed in the file of such application to be considered by the Patent Office upon examination thereof.

“(b) Any person demanding examination of an application under section 132 of this title may notify the Commissioner of any person subject to service of process of any court of the United States who may be in possession of knowledge of prior art pertinent to the patentability of a published and pending application, together with the fee prescribed by law and prepayment of a deposit sufficient to cover the costs, fees and expenses involved, and the Commissioner shall by service of written interrogatories pursuant to rule 31 of the Federal Rules of Civil Procedure require such person to give evidence by deposition under oath of all such prior art then known to him.

“§ 138. Examination of related applications

“When examination of an application is requested under section 132 of this title, the Commissioner may call upon the applicant to complete and request examination of any other of his applications which may be pending and which claim the date of the first mentioned application or any application the date of which is claimed by the first mentioned application and to pay the fee. Notice shall be given the applicant of the fee due and a time of not less than thirty days shall be set for payment. If the fee is paid within the specified time, examination shall proceed on all such applications concurrently. If the fee is not paid within such time, the applications on which the required fee has not been paid shall be regarded as abandoned.

"Chapter 13.—REVIEW OF PATENT OFFICE DECISIONS

"Sec.

"141. Appeal to Court of Customs and Patent Appeals.

"142. Notice of appeal.

"143. Proceedings on appeal.

"144. Decision on appeal.

"145. Civil Action.

"§ 141. Appeal to Court of Customs and Patent Appeals

"An applicant, or his successor in title, dissatisfied with the decision of the Board of Appeals may appeal to the United States Court of Customs and Patent Appeals, thereby waiving his right to proceed under section 145 of this title.

"§ 142. Notice of appeal

"When an appeal is taken to the United States Court of Customs and Patent Appeals, the appellant shall file in the Patent Office a written notice of appeal directed to the Commissioner, within such time after the date of the decision appealed from, not less than sixty days, as the Commissioner appoints.

"§ 143. Proceedings on appeal

"The Patent Office shall transmit to the United States Court of Customs and Patent Appeals certified copies of all the necessary papers and evidence designated by the appellant and any additional papers and evidence designated by the Commissioner. The Commissioner may appear in court by his representative and present the position of the Patent Office. The court shall, before hearing an appeal, give notice of the time and place of the hearing to the Commissioner and the appellant.

"§ 144. Decision on appeal

"The United States Court of Customs and Patent Appeals shall review the decision appealed from on the evidence produced before the Patent Office and transmitted to the court under the provisions of section 143 of this title. Upon its determination the court shall return to the Commissioner a certificate of its proceedings and decision, which shall be entered of record in the Patent Office and govern the further proceedings in the case.

"§ 145. Civil Action

"An applicant, or his successor in title, dissatisfied with the decision of the Board of Appeals may, unless appeal has been taken to the United States Court of Customs and Patent Appeals, have remedy by civil action against the Commissioner in the United States District Court for the District of Columbia if commenced within such time after such decision, not less than sixty days, as the Commissioner appoints. The court may adjudge that such applicant is entitled to receive a patent for his invention, as disclosed in his complete application, as the facts in the case may appear, and such adjudication shall be entered of record in the Patent Office and govern further proceedings in the case.

"Chapter 14.—ISSUE OF PATENT

"Sec.

"151. Publication and issue of patent.

"152. How issued.

"153. Contents and term of patent.

"§ 151. Publication and issue of patent

"(a) If it is determined that an applicant is entitled to a patent under the law, a written notice of allowance of the application shall be given or mailed to the applicant. The notice shall specify a fee, upon payment of which within the time established, notice that the application has been allowed shall be published together with any changes from the text of the application published under section 120 of this title.

"(b) If any payment required by this section is not timely made, but is submitted with the fee for delayed payment within three months after the due date and sufficient cause is shown for the late payment, it may be accepted by the Commissioner as though no abandonment or lapse had ever occurred.

"§ 152. How issued

"Patents shall be issued in the name of the United States of America, under the seal of the Patent Office, and shall be signed by the Commissioner or have his signature placed thereon, and shall be recorded in the Patent Office.

"§ 153. Contents and terms of patent

"(a) Every patent shall contain a grant to the applicant, his heirs or assigns, of the right, during the term of the patent to exclude others from making, using, or selling the invention throughout the United States, referring to the specification for the particulars thereof. A copy of the specification and drawings shall be annexed to the patent and be a part thereof.

"(b) The term of a patent shall expire twenty years from the date of filing the application in the United States or, if the benefit of the filing date in the United States of a prior application is claimed, from the earliest such prior date claimed. In determining the term of the patent, the date of filing any application in a foreign country which may be claimed by the applicant shall not be taken into consideration.

"Chapter 15.—PLANT PATENTS

"Sec.

"161. Patents for plants.

"162. Description, claim.

"163. Grant.

"164. Assistance of Department of Agriculture.

"§ 161. Patents for plants

"(a) Whoever invents or discovers and asexually reproduces any distinct and new variety of plant including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state, may obtain a patent therefor, subject to the conditions and requirements of this title.

"(b) The provisions of this title relating to patents for inventions shall apply to patents for plants, except as otherwise provided.

"§ 162. Description, claim

"No plant patent shall be declared invalid for noncompliance with section 112 of this title if the description is as complete as is reasonably possible.

"The claim in the specification shall be in formal terms to the plant shown and described.

"§ 163. Grant

"In the case of a plant patent the grant shall be of the right to exclude others from asexually reproducing the plant or selling or using the plant so reproduced.

"§ 164. Assistance of Department of Agriculture

"The President may by Executive order direct the Secretary of Agriculture in accordance with the requests of the Commissioner, for the purpose of carrying into effect the provisions of this title with respect to plants (1) to furnish available information of the Department of Agriculture, (2) to conduct through the appropriate bureau or division of the Department research upon special problems, or (3) to detail to the Commissioner officers and employees of the Department.

"Chapter 16.—DESIGNS

"Sec.

"171. Patents for designs.

"172. Right of priority.

"173. Term of design patent.

"§ 171. Patents for designs

"(a) Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor, subject to the conditions and requirements of this title.

"(b) The provisions of this title relating to patents for inventions shall apply to patents for designs, except as otherwise provided.

"§ 172. Right of priority

"The right of priority provided for by section 117 of this title shall be six months in the case of designs.

"§ 173. Term of design patent

"Patents for designs may be granted for the term of three years and six months, or for seven years, or for fourteen years, as the applicant, in his application, elects.

**"Chapter 17.—SECRECY OF CERTAIN INVENTIONS AND FILING
APPLICATIONS IN FOREIGN COUNTRIES**

"Sec.

- "181. Secrecy of certain inventions and withholding of patent.
- "182. Abandonment of invention for unauthorized disclosure.
- "183. Right of compensation.
- "184. Filing of application in foreign country.
- "185. Patent barred for filing without license.
- "186. Penalty.
- "187. Nonapplicability to certain person.
- "188. Rules and regulations, delegations of power.

"§ 181. Secrecy of certain inventions and withholding of patent

"(a) Whenever publication or disclosure of an invention in which the Government has a property interest might, in the opinion of the head of an interested Government agency, be detrimental to the national security, the Commissioner upon being so notified shall order that the invention be kept secret and shall withhold publication thereof and the grant of a patent under the conditions set forth hereinafter.

"(b) Whenever the publication or disclosure of an invention in which the Government does not have a property interest, might, in the opinion of the Commissioner, be detrimental to the national security, he shall make the application for patent in which such invention is disclosed available for inspection to the Atomic Energy Commission, the Secretary of Defense, and the chief officer of any other department or agency of the Government designated by the President as a defense agency of the United States.

"(c) Each individual to whom the application is disclosed shall sign a dated acknowledgment thereof, which acknowledgment shall be entered in the file of the application. If, in the opinion of the Atomic Energy Commission, the Secretary of a defense department, or the chief officer of another department or agency so designated, the publication or disclosure of the invention would be detrimental to the national security, the Atomic Energy Commission, the Secretary of a defense department, or such other chief officer shall notify the Commissioner and the Commissioner shall order that the invention be kept secret and shall withhold publication and the grant of a patent for such period as the national interest requires, and notify the applicant thereof. Upon proper showing by the head of the department or agency who caused the secrecy order to be issued that the examination of the application might jeopardize the national interest, the Commissioner shall thereupon maintain the application in a sealed condition and notify the applicant thereof. The applicant whose application has been placed under a secrecy order shall have a right to appeal from the order to the Secretary of Commerce under rules prescribed by him.

"(d) An invention shall not be ordered kept secret and publication withheld for a period of more than one year. The Commissioner shall renew the order at the end thereof, or at the end of any renewal period, for additional periods of 1 year upon notification by the head of the department or the chief officer of the agency who caused the order to be issued that an affirmative determination has been made that the national interest continues so to require. An order in effect, or issued, during a time when the United States is at war, shall remain in effect for the duration of hostilities and one year following cessation of hostilities. An order in effect, or issued, during a national emergency declared by the President shall remain in effect for the duration of the national emergency and six months thereafter. The Commissioner may rescind any order upon notification by the head of the department or the chief officer of the agency who caused the order to be issued that the publication or disclosure of the invention is no longer deemed detrimental to the national security.

"§ 182. Abandonment of invention for unauthorized disclosure

"The right to patent an invention disclosed in an application for patent subject to an order made pursuant to section 181 of this title may be held abandoned upon its being established by the Commissioner that in violation of said order the invention has been published or disclosed or that an application for a patent therefor has been filed in a foreign country by the inventor, his successors, assigns, or legal representatives, or anyone in privity with him or them, without the consent of the Commissioner. The abandonment shall be held to have occurred as of the time of violation. The consent of the Commissioner shall not be given without the concurrence of the head of the department or the chief officer of the agency who caused the order to be issued. A holding of abandonment shall constitute forfeiture by the applicant, his successors, assigns, or legal representa-

tives, or anyone in privity with him or them, of all claims against the United States based upon such invention.

"§ 183. Right of compensation

"An applicant, his successors, assigns, or legal representatives, whose patent is withheld as herein provided, shall have the right, beginning at the date the applicant is notified of such order and ending six years after the expiration of the term prescribed by a patent issuing on his application, to apply to the head of any department or agency who caused the order to be issued for compensation for (1) the damage caused by the order of secrecy and (2) the use of the invention by the Government resulting from his disclosure. The right to compensation for use shall begin on the date of the first use of the invention by the Government. The head of the department or agency is authorized, upon the presentation of a claim, to enter into an agreement with the applicant, his successors, assigns, or legal representatives, in full settlement of applicant's claims for damage or use or both. This settlement agreement shall be conclusive for all purposes notwithstanding any other provision of law to the contrary. If full settlement of a claim cannot be effected, the head of the department or agency may award and pay to such applicant, his successors, assigns, or legal representatives, a sum not exceeding 75 per centum of the sum which the head of the department or agency considers just compensation for the damage or use. A claimant may bring suit against the United States in the Court of Claims or in the District Court of the United States for the district in which such claimant is a resident for an amount which when added to the award shall constitute just compensation for the damage or use claimed. The owner of any patent issued upon an application that was subject to a secrecy order issued pursuant to section 181 of this title, who did not apply for compensation as above provided, shall have the right, after the date of issuance of such patent, to bring suit in the Court of Claims for just compensation for (1) the damage caused by the order of secrecy and (2) the use of the invention by the Government resulting from his disclosure. The right to compensation for use shall begin on the date of the first use of the invention by the Government. In a suit under the provisions of this section the United States may avail itself of all defenses it may plead in an action under section 1498 of title 28. This section shall not confer a right of action on anyone or his successors, assigns, or legal representatives who, while in the full-time employment or service of the United States, discovered, invented, or developed the invention on which the claim is based.

"§ 184. Filing of application in foreign country

"(a) Except when authorized by a license obtained from the Commissioner, a person shall not file or cause or authorize to be filed in any foreign country prior to six months after filing a complete application in the United States an application for patent or for the registration of a utility model, industrial design or model in respect of an invention made or first sought to be patented in this country. A license shall not be granted with respect to an invention subject to an order issued by the Commissioner pursuant to section 181 of this title without the concurrence of the head of the department or the chief officer of the agency who caused the order to be issued. The license may be granted retroactively where an application has been inadvertently filed abroad and the application does not disclose an invention within the scope of section 181 of this title.

"(b) The term 'application' when used in this chapter includes any modifications, amendments, supplements thereto, or divisions thereof which make any material alteration in or additions to the disclosure thereof.

"(c) In order to expedite the licensing of the foreign filing of a complete application claiming the priority of a preliminary application, an applicant may at any time demand a license with respect to a preliminary application and on demand for license with respect of a complete application, it shall be necessary to consider only subject matter contained in the complete application that is not contained in substance in a licensed preliminary application. A demand for license of a preliminary application that is not made the subject of an order under section 181 of this title within six months after it is made is granted.

"§ 185. Patent barred for filing without license

"Notwithstanding any other provisions of law no person nor any of his successors, assigns, or legal representatives, shall receive a United States patent for an invention subject to the provisions of section 184 of this title if that person, or his successors, assigns, or legal representatives shall have made, or consented to or assisted another's making, application in a foreign country for

a patent or for the registration of a utility model, industrial design, or model in respect of the invention without procuring the license prescribed in that section. A United States patent issued to such person, his successors, assigns, or legal representatives shall be invalid.

“§ 186. Penalty

“Whoever, during the period or periods of time an invention has been ordered to be kept secret and the grant of a patent thereon withheld pursuant to section 181 of this title, shall, with knowledge of such order and without due authorization, willfully publish or disclose or authorize or cause to be published or disclosed the invention, or material information with respect thereto, or whoever, in violation of the provisions of section 184 of this title, shall file or cause or authorize to be filed in any foreign country an application for patent or for the registration of a utility model, industrial design, or model in respect of any invention made in the United States, shall, upon conviction, be fined not more than \$10,000 or imprisoned for not more than two years, or both.

“§ 187. Nonapplicability to certain persons

“The prohibitions and penalties of this chapter shall not apply to any officer or agent of the United States acting within the scope of his authority, nor to any person acting upon his written instructions or permission.

“§ 188. Rules and regulations, delegation of power

“The Atomic Energy Commission, the Secretary of a defense department, the chief officer of any other department or agency of the Government designated by the President as a defense agency of the United States, and the Secretary of Commerce, may separately issue rules and regulations to enable the respective department or agency to carry out the provisions of this chapter, and may delegate any power conferred by this chapter.

“PART III—PATENTS AND PROTECTION OF PATENT RIGHTS

“CHAPTER	Sec.
“25. AMENDMENT, CORRECTION AND REVOCATION OF PATENTS-----	251
“26. OWNERSHIP, ABANDONMENT, AND ASSIGNMENT-----	261
“27. INFRINGEMENT OF PATENTS-----	271
“28. REMEDIES FOR INFRINGEMENT OF PATENT AND OTHER ACTIONS-----	281

“Chapter 25.—AMENDMENT, CORRECTION AND REVOCATION OF PATENTS

“Sec.

- “251. Republication of defective applications.
- “252. Effect of republication.
- “253. Disclaimer.
- “254. Certificate of correction of Patent Office mistake.
- “255. Certificate of correction of applicant's mistake.
- “256. Correction of named inventor.
- “257. Revocation.

“§ 251. Republication of defective applications

“(a) Whenever any publisher and pending or patented application is, through error without any deceptive intention, found to be misleading or incomplete, by reason of a defective disclosure or drawing, or by reason of the applicant claiming other than he had a right to claim, the Commissioner shall, upon the petition of the owner and the payment of the fee required by law, republish the application for the invention disclosed in the original application to be effective in accordance with the republished application, for the unexpired part of the term measured by the original application. No new matter shall be introduced into the republished application.

“(b) The provisions of this title relating to original applications for patent shall be applicable to republished application.

“(c) A petition to republish an application may be filed at any time within twenty-six years of the earliest priority date claimed under section 118 of this title in the original application. If a patent has been granted upon the original application, the petition shall reopen the republished application for examination in all respects.

“§ 252. Effect of republication

“(a) Every republished application shall have the same effect and operation in law, on the trial of actions for causes thereafter arising, as if the same had

been originally published in such amended form, but insofar as the claims of the original and republished applications are identical, such republication shall not affect any action then pending nor abate any cause of action then existing, and the republished application, to the extent that its claims are identical with the original application, shall constitute a continuation thereof and have effect continuously from the date of the original application.

"(b) No republished application shall abridge or affect the right of any person or his successors in business who made, purchased or used prior to the republication anything claimed by the republished application, to continue the use of, or to sell to others to be used or sold, the specific thing so made, purchased or used, unless the making, using or selling of such thing infringes a valid claim of the republished application which was in the original application. The court before which such matter is in question may provide for the continued manufacture, use or sale of the thing made, purchased or used as specified, or for the manufacture, use or sale of which substantial preparation was made before the republication, and it may also provide for the continued practice of any process claimed by the republished application, practiced, or for the practice of which substantial preparation was made, prior to the republication, to the extent and under such terms as the court deems equitable for the protection of investments made or business commenced before the republication and in reasonable reliance on the text of the original application.

"§ 253. Disclaimer

"(a) Whenever, without any deceptive intention, a claim of a published application or patent is invalid the remaining claims shall not thereby be rendered invalid. The owner, whether of the whole or any sectional interest therein, may, on payment of the fee required by law, make disclaimer of any complete claim, stating therein the extent of his interest in such published application or patent. Such disclaimer shall be in writing and recorded in the Patent Office. It shall thereafter be considered as part of the original published application or patent to the extent of the interest possessed by the disclaimant and by those claiming under him.

"(b) In like manner any patentee or applicant may disclaim or dedicate to the public the entire term, or any terminal part of the term, of the patent granted or to be granted.

"§ 254. Certificate of correction of Patent Office mistake

"Whenever a mistake in a published application or patent, incurred through the fault of the Patent Office, is clearly disclosed by the records of the Office, the Commissioner may issue a certificate of correction stating the fact and nature of such mistake, under seal, without charge, to be recorded in the records of the Patent Office. A printed copy thereof shall be attached to each printed copy of the published application and patent, and such certificate shall be considered as part of the original published application and patent. Every such published application and patent, together with such certificate, shall have the same effect and operation in law on the trial of actions for causes thereafter arising as if the same had been originally issued in such corrected form. The Commissioner may issue a corrected published application or patent without charge in lieu of and with like effect as a certificate of correction.

"§ 255. Certificate of correction of applicant's mistake

"Whenever a mistake of a clerical or typographical nature, or of minor character, which was not the fault of the Patent Office, appears in a published application or patent and a showing has been made that such a mistake occurred in good faith, the Commissioner may, upon payment of the required fee, issue a certificate of correction, if the correction does not involve such changes in the published application or patent as would constitute new matter or would require reexamination. Such published application or patent, together with the certificate, shall have the same effect and operation in law on the trial of actions for causes thereafter arising as if the same had been originally issued in such corrected form.

"§ 256. Correction of named inventor

"Omission of an inventor's name or inclusion of the name of a person not an inventor, without deceptive intent shall not affect validity of a published application or patent, and may be corrected at any time by the Commissioner in accordance with regulations established by him or upon order of a court of competent

jurisdiction before which the matter is called in question. Upon such correction the Commissioner shall issue a certificate accordingly.

"§ 257. Revocation

"(a) Any person, or the head of an agency or department of the Government, may petition the Patent Office for a determination that a claim of a patent is invalid in view of designated prior art. Such petition shall explain the pertinency of the prior art cited and be accompanied by a fee of \$500. The Patent Office shall (1) ascertain whether any civil action involving the validity of the claim is then pending; (2) if such action is pending, refer the petition to the court having jurisdiction thereof for determination; or (3) if no such action is pending, determine on the basis of such petition whether or not the claim should have been allowed. If the Patent Office determines that the claim should not have been allowed, the owner of the patent as shown by the records of the Patent Office shall be notified and given an opportunity to amend the claim as provided in subsection (b) of this section or to request reconsideration of such determination as provided in subsection (c) of this section, within such time, not less than thirty days, as the Commissioner appoints. If the owner of the patent takes neither such action during the prescribed time, the claim in question shall be cancelled from the patent.

"(b) Upon receipt of the notice specified in subsection (a) of this section, if the patentee elects to amend the claim specified in the notice, he shall file a petition to republish under the provisions of section 251 of this title.

"(c) Upon receipt of the notice specified in subsection (a) of this section, the patentee may request reconsideration before the Board of Appeals whose decision shall be reviewable as provided in chapter 13 of this title. A final decision, from which no appeal has been or can be taken, that the claim should not have been allowed shall operate to cancel the claim from the patent. Neither the denial of a petition under subsection (a) of this section, nor a determination that the claim was properly allowed, shall be subject to direct judicial review.

"(d) Upon a decision by the Patent Office that the claim should have been allowed, a petitioner under subsection (a) of this section may in appropriate cases be required to pay to the patent owner the reasonable cost of defending such claim in the Patent Office, including attorney's fees, not to exceed a total of \$1,000, as determined by the Commissioner. The Commissioner may require an appropriate deposit or bond with surety for such cost prior to considering the petition.

"Chapter 26.—OWNERSHIP, ABANDONMENT, AND ASSIGNMENT

"Sec.

"261. Ownership, abandonment; assignment.

"262. Joint owners.

"263. Determination of title disputes.

"§ 261. Ownership; abandonment; assignment

"(a) Subject to the provisions of this title, inventions, applications and patents shall have the attributes of personal property.

"(b) Inventions are the property of their inventors when made, subject to any preexisting rights, obligations, or duties with respect thereto created by contract or operation of law. Unless an invention is made the subject of an application pursuant to this title or is caused to become a part of the prior art to such an application, it is abandoned for the purposes of this title only, subject however to the defense provided in section 282(b) of this title.

"(c) Applications for patent, patents, or any interest therein, shall be assignable in law by an instrument in writing. An applicant or a patentee may in like manner grant and convey an exclusive right under his application for patent, or patent, to the whole or any specified part of the United States for the whole or any specified part of the right to exclude conferred thereby.

"(d) A certificate of acknowledgment under the hand and official seal of a person authorized to administer oaths within the United States, or, in a foreign country, of a diplomatic or consular officer of the United States or an officer authorized to administer oaths whose authority is proved by a certificate of a diplomatic or consular officer of the United States, shall be prima facie evidence of the execution of an assignment, grant or conveyance of a patent or application for patent.

"(e) An assignment, grant or conveyance, or any license, easement, quitclaim, covenant not to sue, release, or the like purporting to operate in any manner

after its own date shall be void as against any subsequent purchaser or mortgagee for a valuable consideration, without notice, unless it is recorded in the Patent Office within three months from its date or prior to the date of such subsequent purchase or mortgage.

"§ 262. Joint owners

"In the absence of any agreement to the contrary recorded in the Patent Office, each of the joint owners of a published application or patent may make or have made for him, and use or sell, or have used or sold for him, the invention claimed therein without the consent of and without accounting to the other owners, but, except with the consent of the other owners, the interest of a joint owner of a published application or patent may be transferred only to another joint owner or by inheritance or bequest.

"§ 263. Determination of title disputes

"Title to any invention, application, or patent may be determined by civil action or other appropriate proceeding in any court of competent jurisdiction and the Commissioner shall give effect to final judgment in such proceeding as required by law and in accordance with the principles of equity.

"Chapter 27.—INFRINGEMENT OF PATENTS

"Sec.

"271. Infringement of patent.

"272. Temporary presence in the United States.

"§ 271. Infringement of patent

"(a) Except as otherwise provided in this title, whoever without authority of the patentee makes, uses or sells any patented invention within the United States, or imports into the United States a product made outside the United States by a process patented in the United States, during the term of the patent therefor, infringes the patent.

"(b) Whoever actively induces infringement of a patent shall be liable as an infringer.

"(c) Whoever sells a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use, shall be liable as a contributory infringer.

"(d) No patent owner otherwise entitled to relief for infringement or contributory infringement of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having done one or more of the following: (1) derived revenue from acts which it performed by another without his consent would constitute contributory infringement of the patent; (2) licensed or authorized another to perform acts which if performed without his consent would constitute contributory infringement of the patent; (3) sought to enforce his patent rights against infringement or contributory infringement.

"(e) Whoever, during the interim period after an application is laid open to public inspection under section 120 of this title and before issue of a patent, performs an act which would make him liable for infringement of a valid claim of the patent shall be liable for those acts as an infringer if a like claim appears in the application as laid open to public inspection.

"§ 272. Temporary presence in the United States

"The use of any invention in any vessel, aircraft or vehicle of any country which affords similar privileges to vessels, aircraft or vehicles of the United States, entering the United States temporarily or accidentally, shall not constitute infringement of any patent, if the invention is used exclusively for the needs of the vessel, aircraft or vehicle and is not sold in or used for the manufacture of anything to be sold in or exported from the United States.

"Chapter 28.—REMEDIES FOR INFRINGEMENT TO PATENT, AND OTHER ACTIONS

"Sec.

"281. Remedy for infringement of patent.

"282. Defenses.

"283. Injunction.

"284. Damages.

"285. Attorney fees.

"286. Time limitation on damages.

"287. Mitigation of damages; marking and notice.

"288. Action for infringement of a patent containing an invalid claim.

"289. Additional remedy for infringement of design patent.

"290. Notice of patent suit.

"292. False marking.

"293. Nonresident applicant and patentee; service and notice.

"294. Presumptions and estoppels; cancellation.

"§ 281. Remedy for infringement of patent

"A patentee shall have remedy by civil action for infringement of his patent.

"§ 282. Defenses

"(a) The following shall be defenses in any action involving the validity or infringement of a patent and shall be pleaded:

"(1) Noninfringement, absence of liability for infringement, or unenforceability.

"(2) Invalidity of the patent or any claim in suit on any ground specified in part II of this title as a condition for patentability.

"(3) Invalidity of the patent or any claim in suit for failure to comply with any requirement of sections 112 or 251 of this title.

"(4) Any other fact or act made a defense by this title.

"(b) There is an absence of liability for infringement of a patent by any person who, in the United States, on or before the effective filing date of the application for the patent was, in good faith, manufacturing the product or using the process claimed, or had made substantial preparation for such manufacture or use, and such person shall have the right to continue such manufacture or use despite the patent and to sell the products thereof, but such right shall be personal and nontransferable except with the entire business of the plant at which the manufacture or use began.

"(c) In actions involving the validity or infringement of a patent the party asserting invalidity or noninfringement shall give notice in the pleadings or otherwise in writing to the adverse party at least thirty days before the trial, of the prior art to be relied upon as affecting the validity or scope of the patent, setting forth specific identification of every exhibit and every witness to be relied upon in proof thereof. In the absence of such notice proof of the said matters may not be made at the trial except on such terms as the court requires.

"§ 283. Injunction

"(a) The several courts having jurisdiction of cases under this title may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable.

"(b) No injunction shall be granted with respect to subsequent use or sale of machines, manufactures, or compositions of matter made prior to the grant of the patent and for which damages are awarded under section 284(b) of this title.

"§ 284. Damages

"(a) Upon finding for the claimant, the court shall award the claimant damages adequate to compensate for the infringement but in no event less than the infringer's profits attributable to the infringement or less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.

"(b) Damages for acts set forth in section 271(f) of this title shall be awarded only for acts occurring after actual notice to the infringer stating how his acts are considered to infringe a claim of an application laid open to public inspection.

"(c) When the damages are not found by a jury, the court shall assess them. The court may increase the damages up to three times the amount found or assessed.

"(d) The court may receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable under the circumstances.

"§ 285. Attorney fees

"The court in appropriate cases may award reasonable attorney fees to the prevailing party.

"§ 286. Time limitation on damages

"(a) Except as otherwise provided by law, no recovery shall be had for any infringement committed more than six years prior to the filing of the complaint or counterclaim for infringement in the action.

"(b) In the case of claims against the United States Government for use of a patented invention, the period before bringing suit, up to six years, between the date of receipt of a written claim for compensation by the Department or agency of the Government having authority to settle such claim, and the date of mailing by the Government of a notice to the claimant that his claim has been denied shall not be counted as part of the period referred to in the preceding paragraph.

"§ 287. Mitigation of damages; marking and notice

"Patentees, applicants, and persons making, using, or selling any invention for or under them that is the subject of a patent or a published application therefor, may give notice to the public thereof either by fixing to an article the word 'patent' or the abbreviation 'pat.' or the words 'patent applied for' or the abbreviation 'pat. app. for,' together with the number of the patent or application related thereto, or when, from the character of the article, this can not be done, by fixing to it, or to the package wherein one or more of them is contained, a label containing a like notice. The failure so to mark may be proved as an element in mitigation of damages or diminution of what royalty would be reasonable prior to the date when the infringer was notified of the infringement. Filing of an action for infringement shall constitute such notice.

"§ 288. Action for infringement of a patent containing an invalid claim

"Whenever, without deceptive intention, a claim of a patent is invalid, an action may be maintained for the infringement of a claim of the patent which may be valid. The patentee shall recover no costs unless a disclaimer of the invalid claim has been entered at the Patent Office before the commencement of the suit.

"§ 289. Additional remedy for infringement of a design patent

"(a) Whoever during the term of a patent for a design, without license of the owner, (1) applies the patented design, or any colorable imitation thereof, to any article of manufacture for the purpose of sale, or (2) sells or exposes for sale any article of manufacture to which such design or colorable imitation has been applied shall be liable to the owner to the extent of his total profit, but not less than \$250, recoverable in any United States district court having jurisdiction of the parties.

"(b) Nothing in this section shall prevent, lessen, or impeach any other remedy which an owner of an infringed patent has under the provisions of this title, but he shall not twice recover the profit made from the infringement.

"§ 290. Notice of patent suits

"The clerks of the courts of the United States, within one month after the filing of an action under this title shall give notice thereof in writing to the Commissioner, setting forth so far as known the names and addresses of the parties, name of the inventor, and the designating number of the patent upon which the action has been brought. If any other patent is subsequently included in the action he shall give like notice thereof. Within one month after the decision is rendered or a judgment issued the clerk of the court shall give notice thereof to the Commissioner. The Commissioner shall, on receipt of such notices, enter the same in the file of such patent.

"§ 292. False marking

"(a) Whoever, without the consent of the patentee, marks upon, or affixes to, or uses in advertising in connection with anything made, used, or sold by him, the name or any imitation of the name of the patentee, the patent number, or the words 'patent,' 'patentee,' or the like, with the intent of counterfeiting or imitating the mark of the patentee, or of deceiving the public and inducing them to believe that the thing was made or sold by or with the consent of the patentee; or

"Whoever marks upon, or affixes to, or uses in advertising in connection with any unpatented article, the word 'patent' or any word or number importing that the same is patented, for the purpose of deceiving the public; or

"Whoever marks upon, or affixes to, or uses in advertising in connection with any article, the words 'patent applied for,' 'patent pending,' or any word importing that an application for patent has been made, when no application for patent has been made, or if made, is not pending, for the purpose of deceiving the public—

"Shall be fined not more than \$500 for every such offense.

"(b) Any person may sue for the penalty, in which event one-half shall go to the person suing and the other to the use of the United States.

"§ 293. Nonresident applicant and patentee; service and notice

"Every applicant and every patentee not residing in the United States may file in the Patent Office a written designation stating the name and address of a person residing within the United States on whom may be served process or to whom may be mailed notice of proceedings affecting the application or the patent or rights thereunder. If the person designated cannot be found at address given in the last designation, or if no person has been designated, such process or notice may be served as provided for service of process by publication in civil actions in the District of Columbia and the court or agency concerned shall have the same jurisdiction to take any action respecting the application or patent or rights thereunder that it would have if the applicant or patentee were personally served.

"§ 294. Presumptions and estoppels; cancellation

"(a) Actions of the Commissioner are administrative in nature and are entitled to the usual presumption that they are correct and legal. Review, re-review, examination, and reexamination of applications, and appeals to the Board of Appeals under chapter 12 of this title involve findings of fact. Appeals to the United States Court of Customs and Patent Appeals shall be governed by the scope of review provided in section 1009(e) of title 5, United States Code, without trial de novo. In civil actions calling into question the validity of findings of facts by the Patent Office such findings shall not be set aside unless clearly erroneous.

"(b) In any civil action in a Federal Court in which the validity or scope of a claim of a patent is drawn into question, the owner of the patent, as shown by the records of the Patent Office, shall have the unconditional right to intervene to defend the validity or scope of such claim and to obtain evidence of knowledge of prior art pertinent thereto in the possession of any person subject to service of process of any court of the United States. The party challenging validity or scope of the claim shall serve upon the patent owner a copy of the earliest pleading asserting such challenge. If the owner cannot be personally served in the exercise of reasonable diligence, service may be made in any manner provided for in the Federal Rules of Civil Procedure and, in addition, notice shall be transmitted to the Patent Office and published in the Official Gazette.

"(c) In any action as set forth in subsection (b) of this section, a final adjudication, from which no appeal has been or can be taken, limiting the scope of the claim or holding it to be invalid, shall constitute an estoppel against the patentee, and those in privity with him, in any subsequent Federal action, and may constitute an estoppel in such other Federal actions as the latter court may determine, involving such patent. Within thirty days of such adjudication the clerk of the court shall transmit notice thereof to the Commissioner, who shall place the same in the public records of the Patent Office pertaining to such patent, and endorse notice on all copies of the patent thereafter distributed by the Patent Office that the patent is subject to such adjudication.

"(d) In any action as set forth in subsection (b) of this section, upon a final adjudication from which no appeal has been or can be taken that a claim of the patent is invalid, the court may order cancellation of such claim from the patent. Such order shall be included in the notice to the Commissioner specified in subsection (c) of this section, and the notice of cancellation of a claim shall be published by the Commissioner and endorsed on all copies of the patent thereafter distributed by the Patent Office."

TRANSITIONAL AND SUPPLEMENTARY PROVISIONS

SEC. 2. (a) Section 1291 of title 28, United States Code, Judicial Code and Judiciary, is amended to read as follows:

"§ 1291. Final decisions of district courts

"The courts of appeals shall have jurisdiction of appeals from all final decisions of the district courts of the United States, the United States District Court

for the District of the Canal Zone, the District Court of Guam, and the District Court of the Virgin Islands, except where a direct review may be had in the Supreme Court and in cases reviewable under section 1543 of this title."

(b) Section 1292(a) (7) of title 28, United States Code, Judicial Code and Judiciary, is amended to read as follows:

"§ 1292. Interlocutory decisions

"(a) The courts of appeals shall have jurisdiction of appeals from:

"(1) Interlocutory orders of the district courts of the United States, the United States District Court for the District of the Canal Zone, the District Court of Guam, and the District Court of the Virgin Islands, or of the judges thereof, granting, continuing, modifying, refusing or dissolving injunctions, or refusing to dissolve or modify injunctions, except where a direct review may be had in the Supreme Court and in cases reviewable under section 1543 of this title."

(b) Title 28, United States Code, Judicial Code and Judiciary, is amended by adding new section 1543 reading as follows:

"§ 1543. Civil actions in Patent Office patent cases

"(a) The Court of Customs and Patent Appeals shall have jurisdiction of appeals from all final decisions of the United States District Court for the District of Columbia in cases under section 145 of title 35, United States Code.

"(b) When a district judge, in making in a civil action under section 145 of title 35, United States Code, an order not otherwise appealable under this section, shall be of the opinion that such order involves a controlling question of law as to which there is substantial ground for difference of opinion and that an immediate appeal from the order may materially advance the ultimate termination of the litigation, he shall so state in writing in such order. The Court of Customs and Patent Appeals may thereupon, in its discretion, permit an appeal to be taken from such order, if application is made to it within ten days after the entry of the order: *Provided, however*, That application for an appeal hereunder shall not stay proceedings in the district court unless the district judge or the Court of Customs and Patent Appeals or a judge thereof shall so order."

(c) The section analysis of Chapter 93—Court of Customs and Patent Appeals, of title 28, United States Code, Judicial Code and Judiciary, preceding section 1541, is amended by adding the following line:

"1543. Civil Action in Patent Office patent cases."

SEC. 3. If any provision of title 35 Patents, United States Code, as amended by this Act, or any other provision of this Act, is declared unconstitutional or is held invalid, the validity of the remaining provision shall not be affected.

SEC. 4. (a) This Act shall take effect on the day six months after enactment.

(b) Applications for patent actually filed in the United States prior to the effective date of this Act shall continue to be governed by the provisions of title 35 in effect immediately prior to the effective date, except that any such application still pending eighteen months after its filing date or effective filing date may be laid open for public inspection and published by the Commissioner in accordance with the provisions of section 120 of title 35 as enacted by this Act.

(c) Section 145 of title 35 as enacted by this Act and sections 1291, 1292 and 1543 of title 28 United States Code as amended by this Act shall apply in the case of appeals from the United States District Court for the District of Columbia in which a notice of appeal was filed on or after the effective date of this Act, and the United States Court of Appeals for the District of Columbia Circuit shall transfer to the Court of Customs and Patent Appeals any pending matter in any civil actions in Patent Office patent cases unless it determines that delay or duplication would result from the transfer, and the Court of Customs and Patent Appeals shall have jurisdiction to determine all matters so transferred.

(d) Complete applications for patent actually filed in the United States within one year after the effective date of this Act and not relying on a prior preliminary application shall continue to be governed by the provisions of chapter 10 and by the provisions relating to interferences in chapters 12 and 13, of title 35 in effect immediately prior to the effective date.

(e) Assistant commissioners of patents and examiners-in-chief in office on the effective date of this Act shall continue in office under and in accordance with their then existing appointments.

(f) The amendment of title 35, United States Code, by this Act, shall not affect any rights or liabilities existing under title 35 in effect immediately prior to the effective date of this Act.

SEC. 5. This Act may be cited as "The Patent Act of 1967."

Senator McCLELLAN. The next witness is Mr. Graham McGowan.

STATEMENT OF GRAHAM MCGOWAN, GENERAL COUNSEL, ELECTRONIC INDUSTRIES ASSOCIATION, ACCOMPANIED BY WILLIAM J. KEATING, AMP, INC., AND JOHN PHILLIP RYAN, GLOBE UNION, INC.

Mr. MCGOWAN. Mr. Chairman, my name is Graham McGowan. I am general counsel for the Electronic Industrial Association, and I appear here today on its behalf.

I should explain that I am not a patent attorney, but I do have with me two such gentlemen. To my left is Mr. William Keating of AMP, Inc., Harrisburg, Pa., and on my right is Mr. John P. Ryan of Globe Union, Inc., Milwaukee, Wis.

Senator McCLELLAN. All right, gentlemen. We welcome you. You may proceed now, Mr. McGowan. Do you want to file your statement and let it be published in the record or do you wish to summarize it?

Mr. MCGOWAN. Mr. Chairman, I have a statement which I would like to have filed for the record, and I have some prepared remarks which, to save the committee's time, I would like to make here.

Senator McCLELLAN. All right, the prepared statement which you submitted may be printed in full in the record. You may proceed.

Mr. MCGOWAN. Thank you, sir.

The Electronics Industry Association represents approximately 300 companies both large and small, engaged in the development, manufacture, and sale of electronic equipment, an industry perhaps more than any other surrounded by the problems of exploding technology.

Since the report of the President's Commission was issued late in 1966, EIA has discussed and considered in great detail, particularly in its parents and proprietary information committee, the Commission's recommendations as well as the various patent bills which have been introduced in the Congress. In an organization as large as ours, it is not surprising that individual views varied. Following the introduction last year of S. 1042 we were, however, able to develop a consensus statement on many if not all of the more significant issues raised by this bill. When S. 2597 was introduced, we renewed our discussion and revised our statement to reflect views on this bill as well. This revised statement is being filed with your subcommittee today. My remarks, in the interest of the committee's time, will be limited to those major aspects of these two bills about which we feel most strongly.

Certainly the most controversial feature of S. 1042 is its adoption of the first-to-file principles recommended by the President's Commission, and the abolition of the 1 year grace period.

Senator McCLELLAN. What is the real objection? I guess you can tell us that very quickly. As I understand it as modified, when a patent application is filed and within a year's time, if someone claims they had invented it prior to the one who has made the application, they can assert that claim, and then it can be contested, is that right?

Mr. McGOWAN. Senator, I would like to refer to one of my experts here.

Mr. KEATING. Might I speak to that, Senator?

Senator McCLELLAN. Yes. This is no final conclusion or decision, but here is a man, who may have an invention, an advance in technology. He may not know it, and he does nothing about it, or he may be neglectful or dilatory and he does not take action to protect his invention. Someone else has the same invention, and he is diligent, he proceeds immediately to file his application. He is there first with the request, and he wants to move right on in to get a patent and get his invention in the commercialized market. The other fellow wakes up and finds out somebody else is claiming that he invented what this man has. He says "I am going up there and file. That is really my invention which I discovered before he did." He has a year in which to do that as I understand it?

Mr. KEATING. Yes, sir.

Senator McCLELLAN. I don't know, I have not come to any final decision, but it seems to me that's being reasonably fair with a man who may have made a discovery and not sought to patent it until someone else did.

Mr. KEATING. Under the situation you have set up, you are correct. The equities are in favor of the man who gives the benefit of his invention to the public. But what happens more frequently is that the inventor needs time in order to perfect his invention.

I represent a medium-size electronic firm in Harrisburg, Pa., and we have grown to \$150 million from a small garage operation 25 years ago, and at the present time we spend approximately \$15 million per year on research and development, and it is necessary for us to take these concepts and test them, depending on how complicated the component is. We may have to test them for 6 months, for a year, for several years. We may have to take these things out into the field, out into the marketplace and test them under field conditions, and it is necessary for us to have some protection on this investment. Now, if someone else—

Senator McCLELLAN. Does that give you protection as I have indicated?

Mr. KEATING. You have given us protection if we go into the Patent Office immediately and file our patent application. But the final form of our component may be significantly different than the first prototype invention that we make, and in order to benefit from the patent system, it is necessary that our patent application should contain the preferred form, and not some preliminary idea that we may have that may not work.

Senator McCLELLAN. There may be some practical considerations that outweigh the thoughts I have given to it so far. As I say, I have not closed my mind on it at all. It did impress me that here is a fellow who is diligent and he goes on and wants to get his marketed and the other fellow may have discovered it 2 or 3 years ago but did nothing about it. That technology is being denied to our economy, and there would be a reward for diligence there, or a penalty for lack of diligence and for the lack of making available the discovery for the use of mankind.

Mr. KEATING. I agree with you, and under the present statutes the first man would get the invention. The second man would be held to

have abandoned the invention under those conditions, and under our proposals for reform of the Patent Act, that would still hold true.

Senator McCLELLAN. I am going to study it, and I thank you very much and am glad to have your comments on it.

You may proceed, Mr. McGowan.

Mr. McGOWAN. Our association, although agreeing that the Patent Office should issue patents to the first applicant, strongly favors some modification of a strict first-to-file system to permit an interference to be initiated by an applicant desiring to contest priority of invention. We are gratified to note from the statement last week by Assistant Secretary Kincaid before the American Patent Law Association that the administration also is receptive to a modified first-to-file system. In fact, we further agree with Mr. Kincaid, that a modified first-to-file system should contain strong incentives to enter the patent system promptly. We differ with the administration, however, as to the form this incentive should take.

Our proposal is that a junior or later filed applicant be permitted to initiate an interference only when his effective filing date is earlier than 1 year after the effective filing date of the patent with which priority is to be contested. On the other hand, Mr. Kincaid and Commissioner Brenner stated that the administration favors a proposal which would permit the establishment of a date of invention no more than 1 year prior to the effective filing date of the application of the patent claiming the invention.

Our proposal—based on differences in filing dates—may be thought of as an entrance gate requirement and is obviously one which would clearly define at the outset those parties entitled to contest priority. This is consistent with a 1-year grace period and a 1-year period for filing a broadened reissue. Most importantly, our modification will strongly motivate prompt filing of patent applications and hence early disclosure to the public; otherwise the patent rights may be lost to another who, while perhaps inventing later, was more prompt in asserting his rights under the patent system.

Commissioner Brenner's interpretation this morning, proofs of any act would apparently be permitted but if they were accomplished more than 1 year prior to the filing date they could only be used to prove an effective date of invention not more than 1 year prior to the filing date.

The proposal apparently favored by the administration has a number of disadvantages:

- (1) It would change and complicate the already complicated body of substantive interference law. We would note here that although reform in the procedural aspects of interference practice, such as those instituted last year by the Commissioner, are strongly favored, there is much to be said in the interest of certainty for not tinkering with the large body of established substantive interference law.

- (2) The Patent Office would be in the awkward position in many situations of being required to determine from submitted evidence who the actual first inventor was, and, unless the proofs of the other party could be cited as prior art against the later inventor, would have to award priority and the patent to the later inventor.

- (3) We do not visualize that proofs in most cases would be minimized. Under both proposals, both parties in most cases would be required to put in the same proofs of conception, diligence, and reduc-

tion to practice and under the proposal favored by the administration possible additional proofs of diligence would be required.

It is believed that the EIA proposal for a modified first-to-file system, while achieving the same degree of stimulation toward prompt filing, would be easier to comply with and would disrupt the established body of substantive law the least.

A second matter of importance, and one on which we find ourselves in disagreement with the administration's present position, is the defense of prior invention. This defense has been recognized in a long line of cases including the Supreme Court case of *Corona v. Doran* (276 U.S. 358 in 1928) and is codified in the present law as 35 U.S.C. 102(g). It is a natural corollary of our patent system under which only the actual first inventor is entitled to a valid patent, and gives an actual first inventor a defense against a patent issued to a later inventor if he, the first inventor, for some reason(s) does not enter the patent system.

A choice to enter the patent system has one very important consequence—it permits a company to file patent applications selectively. Many of our corporate members elect not to file patent applications on developments of marginal patentability and are able to do so in the knowledge that even if a later developer acquires a patent on the same development, they are protected against suit by the defense of prior invention.

The Department of Commerce letter to Senator Eastland of January 24, 1968, on page 3, in the last full paragraph, there appears to be at least a suggestion that this defense be abolished because in the words of the letter, "it would cast a cloud of possible invalidity over every issued patent and would permit a prior inventor who chose not to use the patent system to destroy the rights of a subsequent inventor who did enter the patent system."

We believe strongly that if this defense is abolished the obvious result would be a substantial increase in the number of patent applications filed—an unwanted result which should certainly be avoided. More importantly, we believe it would be contrary to public policy to require recognition of patents of other than the first inventor.

Mr. Chairman, we feel that only an actual first inventor should have a valid enforceable patent and should have a defense against the patent of a later inventor even if he did not, from choice or otherwise, enter the patent system, or, in the event he entered it too late and was barred by time limitations such as those we recommend from initiating an interference and acquiring a patent of his own.

Also, as we discussed more fully in our filed statement, we believe that this defense should be absolute and not personal, primarily because of the difficulty of legislating a viable personal defense. For these reasons, we recommend no change in the availability of prior invention as a defense.

Mr. Kincaid has stated that a 1-year grace period would be consistent with a modified first-to-file system. The retention of the present 1-year grace period is of critical importance to the members of our association. We are thus pleased to note concurrence in this extremely valuable feature of our present patent system.

In conclusion, Mr. Chairman, our filed statement sets forth the EIA position on the matters I have just discussed, as well as on many other features of S. 1042 and S. 2597. I will not elaborate on these other

matters, but will merely note, with some satisfaction, that, from Mr. Kincaid's talk last week and testimony here today, it appears that EIA's position and that of the administration are in substantial agreement on many of these other matters.

We are happy to have had this opportunity to testify and look forward to an early resolution of such differences as remain at the conclusion of these hearings on this most important legislation.

Senator McCLELLAN. Thank you very much, Mr. McGowan.

Do either of you other gentlemen have any further comment?

Mr. RYAN. One comment, Senator, that was made by some of our members concerning a matter which was touched upon this morning, and that is the registration of attorneys to practice before the Patent Office. The matter has been discussed in our filed statement. Our filed statement indicates that there are a few members in our organization who are still in favor of registering patent agents. I believe the majority, however, favor restricting the practice before the Patent Office to licensed attorneys. We noted that the Patent Office, in comments to this committee this morning, made reference to the recent holdings in the *Hastings* case. It is hoped that the Patent Office, in reevaluating its position on legislation concerning the right to practice before the Patent Office, will take cognizance of the statutory shortcomings which resulted in the judicial determination made in the *Hastings* case. I am hopeful that proposed legislation will come forth which will cure those shortcomings.

My personal opinion, and this is completely free of the EIA position, is that I believe that an attorney practicing before the Patent Office should be accorded the professional stature that is accorded to attorneys in all other phases of the practice of the law and that the registration of agents is unnecessary and undesirable. Dilution of the professional stature in turn clearly reflects upon the legal profession, the Patent Office, and anyone associated with the Patent Office or in the legal profession dealing with the patent laws.

Senator McCLELLAN. Thank you very much gentlemen.

(The prepared statement of Mr. McGowan follows:)

STATEMENT OF GRAHAM W. MCGOWAN ON BEHALF OF THE
ELECTRONIC INDUSTRIES ASSOCIATION

Mr. Chairman and members of the Committee, my name is Graham W. McGowan. I am General Counsel of the Electronic Industries Association and appear today on its behalf. EIA represents approximately 300 companies, both large and small, engaged in the development, manufacture, and sale of electronic equipment.

We feel that this country leads the world in technology and, although it is impossible to prove or disprove, we believe that our present patent system is in no small measure responsible for this lead. This was recognized by the President's Commission, whose objectives we wholeheartedly endorse. The work of the President's Commission has stimulated widespread discussion not only in bar associations but also in industrial associations such as ours. We believe that the outcome of this discussion, properly taken into account, can materially serve to carry forth not only the desirable features of our present patent system, but also to institute needed reform occasioned in large part by exploding technology in a shrinking world. Since the electronics industry is undoubtedly in the vanguard insofar as this exploding technology is concerned, we are vitally interested in our patent system and certainly appreciate the opportunity to be heard on this important legislation.

We have studied the various bills pending before this Committee but will restrict our comments to S. 1042 and S. 2597, since we find in these two bills,

collectively, a sufficient basis for patent legislation which would most effectively achieve the goals set forth by the President's Commission.

FIRST TO FILE

A major feature of both bills is the adoption of first-to-file principles. While S. 1042 would institute a strict first-to-file system, we interpret S. 2597, and in particular Sections 102(e) and 137, as providing a modified first-to-file system. We favor the latter.

A strict first-to-file system would be too burdensome on both the Patent Office and on inventors and their assignees, since it would require a series of applications as a development proceeds rather than a single application on the completed development. Also, it would tend strongly to favor the "paper" inventor at the expense of the inventor who wishes to make certain that his theories and ideas are technically sound and feasible before filing.

Since experience has shown that a very small percentage of patent applicants wish to contest priority of invention, we agree with the principles of S. 2597 which incorporate the simplicity of a first-to-file system (by eliminating the current requirement in 35 U.S.C. 135 that the Commissioner of Patents initiate interferences) but which preserve certain opportunities to contest priority. Specifically, we agree with those provisions of S. 2597 which permit the Patent Office, when faced with conflicting applications, to issue the application of the first-to-file¹ but which also provide a later or junior applicant with an opportunity to contest priority of invention by copying claims from the issued patent (Section 137). Such a system would relieve the Patent Office of the burden of initiating interferences while preserving our traditional concept of awarding patents only to first inventors. Also, interferences would be initiated only when at least one party has a desire to contest priority.

To encourage prompt filing of patent applications, we would modify S. 2597 to limit the right of a *junior* applicant to initiate an interference only when his effective filing date (taking into account any claims of priority based on earlier filed United States or foreign applications) is earlier than one year after the effective filing date of the patent whose claims are being copied.

Also, to assure prompt initiation of interference proceedings so that question of priority can be answered at the earliest possible date, we would require a party copying claims to do so within a reasonable time after the patent from which they are copied issues. With a pre-issue publication procedure for allowed patent applications as discussed later, six months as provided in Section 137 (b) of S. 2597 is believed to be a reasonable time. Without such a procedure, one year from date of issue would be reasonable.

It is recognized that applications will not in all cases issue in the order of filing because of different periods of pendency. Thus, it should be clear that we would permit either a senior or junior party to initiate an interference. A senior party, moreover, should be permitted to copy claims in his application or in a reissue application without regard to differences in filing dates. Also, a senior party (application or patent) should not be limited to six months (or, one year with no pre-issue publication) for copying claims from a junior patent if the senior party prior to six months from the issue date of the junior patent was claiming the same invention. This is similar to present law (35 U.S.C. 135(b)) and is believed reasonable in view of the burden, particularly on independent inventors and small companies, of following current patents as they issue.

Subject to the time limitations discussed earlier, either a junior or senior applicant should be permitted to file a reissue application for the purposes of initiating an interference, but neither party should be permitted to file a broadening reissue application, for any purpose, more than one year after the date of issue of the patent being reissued.

The proposed one-year limitation re filing dates for the junior party is sufficient for development and testing in most cases and is consistent not only with the time for filing a broadened reissue, but also with our recommendation of a one-year grace period. Further, a one-year limitation would encourage prompt filing while retaining some needed flexibility in a modified first-to-file system. In addition, a one-year limitation, based on filing dates, readily defines the parties entitled to initiate an interference.

¹ Although this is implicit in sec. 137 of S. 2597, we recommend that this basic principle be made explicit in any resulting legislation.

We have considered an alternative proposal which incorporates a one-year limitation but in a different manner. In the alternative proposal a party to an interference would be limited to an effective date of invention no more than one year prior to his effective filing date even though his proofs establish an earlier date.

We note that such a system has built into it the same one-year limitation based on filing dates which we propose. Also, under both proposals, the same proofs, in most cases, would be necessary due to the requirement of establishing inventorship through actual dates of conception and reduction to practice. However, under the alternative proposal, the Patent Office, in some situations, would be required to refuse an award of priority to an actual first inventor patentee and also, unless the proofs of the actual first inventor could be cited as "prior art," would be required to issue a patent to an applicant knowing him not to be the first inventor. The public's confidence in the patent system would not be strengthened by a procedure which requires the Patent Office to determine who the actual first inventor is and then to disregard these findings and to issue a patent to a second or later inventor. We should seek changes which will improve the quality and strengthen the validity of patents and avoid changes which would cause us to lose ground in this important objective.

We do, however, see the desirability of a one-year type limitation to stimulate prompt filing and prevent rewarding those who are dilatory in asserting their rights. Our proposed one-year limitation on filing dates retains, to a great extent, the traditional values of a system which rewards the substantive *and* diligent first inventor while remaining compatible with a modified first-to-file system. Also, our proposal should have more universal appeal and support. Although it tightens the "entrance requirements" for an interference, it avoids changes in the extensive body of substantive interference law which the alternative proposal discussed above, and other akin to it, would almost certainly entail. Thus, a higher degree of certainty would result.

INVENTION MADE ABROAD

Under present interference practice, a foreign applicant is limited, for priority purposes, to the priority date of filing of his foreign application. Under 35 U.S.C. 104, the foreign applicant cannot rely on acts outside the United States in establishing a date of conception or reduction to practice. To make our United States patent practice "more compatible with that of other major countries" and to limit the feeling of discrimination on the part of many non-residents, we recognize some desirability of eliminating this possible discrimination against non-nationals so as to permit proof of inventive acts abroad when a patent in the United States is being sought. We see, however, many serious practical difficulties and problems relating to jurisdiction over, and the production of, documentary evidence and witnesses. Unless careful provision is made, an injustice to the national inventor might result, either because of high costs or because of an inability to obtain access to relevant evidence. We therefore suggest that this matter be deferred from immediate legislative action and instead be first considered in treaty discussions with other countries such as those now taking place with regard to international patent cooperation (the Patent Cooperation Treaty). In fact, treaties with individual countries on this subject might be considered immediately for a country such as Canada. In Canada, our nationals are permitted to rely on activities in the United States to establish an invention date for priority purposes but, because of Section 104, the converse is not true for Canadian nationals in the United States.

GRACE PERIOD

A one-year absolute grace period following publication, use, or sale, as provided in S. 2597 (Section 101(h) (3) and (4)), is strongly favored.

Again, a one-year period is believed a reasonable and necessary time for development. Most importantly, we believe that the grace period must be absolute rather than "personal" to promote free scientific interchange. It is feared that a personal grace period (as provided, for example, by amendment No. 182 of Senator Long to S. 1042) would substantially inhibit discussions and exchanges within the scientific community because proof of derivation would be difficult to establish. Also, derivation procedures would be personally offensive to most scientific professionals and would create conflicting relationships among them. Finally, a grace period permits a reasonable time for application filing selectivity which tends to reduce the burden on both the public and Patent Office resulting from the filing of marginal or speculative applications.

DEFENSE OF PRIOR INVENTION

Many industrial concerns choose not to seek patent protection on many of their developments and, in effect, dedicate these developments to the public. Under present law (35 U.S.C. 102(g)), as well as under S. 2597, such concerns are not compelled to file patent applications since they are protected against patents issued to others based on later developments by a defense of prior invention (Section 102(e)). We think it highly desirable that a concern not seeking to enter the patent system on a particular development be protected from patents to later developers. Therefore, we favor a defense of prior invention both for the earlier developer and for the public.

In our opinion, the defense should be absolute rather than personal. In these times it is not unusual for corporations to be formed primarily, and even solely, to promote the invention of an independent inventor. Furthermore, complicated corporate mergers, spin-offs, and other reorganizations are far from uncommon. All of these situations make the legislation of a viable personal defense extremely difficult and in fact we have seen no definition of a personal defense which we consider satisfactory. Even if an adequate personal defense could be defined, we think that the public should not be encumbered by patents of those who are not the first inventor. We therefore recommend that the present law in this area be retained.

PUBLICATION OF APPLICATIONS

Automatic publication of applications after a fixed period of time, as provided in Section 123(a) of S. 1042, is opposed. We favor, however, publication of allowed patent applications as provided in both bills, with an applicant having the right to withdraw his allowed application from publication, for example, by not paying the publication fee. We do not strongly object to publication of applications on appeal, if the application contains an allowed claim. An applicant with no allowed claims, however, would have to surrender his "trade secret", pay a publication fee, and an appeal fee with no assurance that any patent protection may result. This may be too high a price to require for an appeal.

EX PARTE CITATION OF PRIOR ART

Both bills provide in Section 136 for the citation of prior art to the Patent Office by the public during a limited period of time following the publication of allowed applications. This we favor. These two bills also agree that prior art, properly citable, should include not only patents or publications having a bearing on patentability (Section 136(a)), but also prior public use or sale (Section 136(d)(1)). (Although S. 2597 would limit the citation of a prior sale or public use to those which would constitute a statutory bar, no logical reason for this limitation is apparent. For example, even if a prior public use was less than a year prior to the effective filing date of the application, it should be cited and as in the case of a patent or publication, the applicant then given an opportunity to avail himself, if he can, of a Patent Office Rule 131 type of affidavit to establish an earlier date of invention.) S. 2597 alone provides for the citation of acts constituting prior invention (Section 136(d)(3)).

As stated by the Report of the President's Commission, both the public and the patent applicant would benefit by an ex parte procedure to cite "prior art" inexpensively since "greater reliance . . . could be placed upon the validity of patents in general." To achieve maximum effectiveness, simple logic indicates that *all* "prior art" should be citable—patents, publications, public use, sale and prior invention. Some practical considerations should, however, be kept in mind. Currently, the Patent Office is best adapted to considering prior art of the type found in patents and printed publications. Rarely do they consider, ex parte, other types of prior art.

Expeditious consideration of any publicly cited prior art is, of course, highly desirable, particularly if the term of the resulting patent is measured from its filing date. Therefore, it is recommended that before it is decided to permit the citation of prior art other than patents or publications, the Congress assure itself that the Patent Office is equipped both with manpower and facilities to consider promptly cited prior inventions, sales and public uses in the form they are most likely to be received. Otherwise, there would be considerable opportunity for harassment similar to that encountered by many of our members in opposition proceedings in various foreign countries. (Of course, a prior inventor with a pending application should be permitted during the cita-

tion period to cite his application so that the Patent Office could issue the first-filed application and permit an interference to be initiated under Section 137 of S. 2597 as discussed earlier.)

To summarize, we favor a citation period and foresee little difficulty and substantial potential advantage in permitting the public to cite relevant publications and patents for ex parte consideration. On the other hand, we foresee considerable practical difficulties with uncertain advantages in permitting the citation of acts of prior sale, public use or prior invention uncoupled with a pending patent application.

To encourage citation by the public, we favor Section 136(f) of S. 2597 which provides that a person shall not be foreclosed or prejudiced in court proceedings on a patent by either his citing or his failure to cite comparable prior art during the citation period. Otherwise, a party would be reluctant to risk the disposition of a potential defense in an ex parte proceeding.

PRELIMINARY APPLICATIONS

Preliminary applications as provided for in Section 111(e) of S. 1042 would create many problems and are not favored. Even with a grace period, a series of preliminary applications might be required to protect a continuing development which would be both time-consuming and expensive. We foresee considerable examining difficulty in determining whether or not a complete application was entitled to the benefit of the filing date of a preliminary application. Where competing applications were involved each claiming one or more preliminaries, all parties would have to be heard—further compounding the difficulty and expense.

Since a principal purpose of preliminary applications was stated by the President's Commission to be a substitute for the present grace period, it would appear that the retention of a one-year grace period as previously discussed would remove any necessity which might have otherwise existed for such a procedure.

Insofar as relief from the formalities of a patent application is desired, particularly for the independent inventor, it is noted that the Commissioner of Patents already has considerable discretionary power in this area without the need for legislation.

UNIVERSAL PRIOR ART

S. 1042, in Section 102(a), would expand the definition of prior art to include knowledge, use, or sale throughout the world. We do not believe that such foreign actions alone should defeat the validity of a United States patent. Unlike a publication or issued patent, such actions contribute in no appreciable way to the advancement of science and the arts in the United States. Although world-wide prior art might make sense in the context of a world-wide patent system, we believe that an enlargement of the present definition of prior art would be more appropriately considered in negotiations with other countries for such a patent system.

EFFECTIVE PRIOR ART DATE OF UNITED STATES PATENT

S. 2597, in Section 100(h) (i) embodies the rule of *In re Hilmer* (149 PQ 480, CCPA 1966) in that a United States patent would be effective as prior art only as of its actual filing date in the United States. Although our opinions on this matter were divided, the majority would prefer that a United States patent be prior art as of its effective filing date as provided in Section 102(a) of S. 1042. This would avoid anomalous situations which could otherwise arise, such as for example, with two patents having overlapping subject matter, different United States filing dates and different foreign filing priority dates, and neither being prior art against the other.

JOINDER OF INVENTORS AND ASSIGNEE FILING

We favor the relaxation provided in both bills (Section 116(b)) of the current requirements concerning joinder of inventors to permit an application to disclose and claim subject matter without requiring that every named inventor contribute to every claimed feature.

We also favor permitting an application to be filed by the owner of the invention provided each person believed to have made an inventive contribution is named and provided also that a statement of facts supporting an allegation of ownership is filed (Section 111(a) of both bills). However, to protect the rights

of inventors, we agree with S. 2597 that non-signing inventors be promptly notified in some manner (not necessarily the precise manner expressed in Section 111(c) of S. 2597) that an application has been filed in their name. We further agree with the principle embodied in Section 115(b) of S. 1042 that prior to issuance an oath signed by the inventor be provided together with an executed assignment.

CLAIM FOR PRIORITY DATE

We see no reason why a claim for priority should not be made at the time an application is filed (Section 119(b) of both bills), although amendment of such claims should be permitted. Although S. 2597 would broadly permit amendment of such claim at any time during the examination, we would not object to a requirement that such amendment be made only upon a proper showing.

CONTINUATION APPLICATIONS

With the term of a patent measured from its filing date, we see no reason for any limitation on the number of applications in a chain. It is felt that the 20-year term from filing is sufficient incentive for applicants to prosecute promptly. We therefore favor Section 119 of S. 2597.

STANDBY OPTIONAL DEFERRED EXAMINATION

The standby authorization provided by Section 191 of S. 1042 for the Secretary of Commerce to institute deferred examination is opposed. From public statements of Commissioner Brenner, the institution of any system of deferred examination is not now needed. When and if such a system is believed necessary, it should be considered as a separate matter and should be established only by the Congress and not at the administrative level.

It is noted that a small minority of our members favor immediate institution of some form of deferred examination regardless of the Patent Office backlog. Nearly all members, however, are in agreement that this is a matter for Congressional action and should not be delegated.

BURDEN OF PERSUASION

A legislative requirement that an applicant has the burden of persuading the Patent Office that his invention is patentable in our opinion would merely codify present law and practice. Thus, we find Section 137 of S. 1042 unobjectionable. In fact, such a legislative burden could serve to enhance the validity and stature of issued patents. It is assumed that the Patent Office would institute proper safeguards to insure that Examiners would not arbitrarily reject applications on this section alone to avoid an examination for novelty or unobviousness.

PRESUMPTION OF CORRECTNESS

We would favor the enactment of a presumption of correctness which stated that "in all actions under Sections 141 and 145 . . . the Patent Office decisions shall be given a presumption of correctness." The further language currently found in Section 148 of S. 1042 would pose difficulties and should not be adopted.

CANCELLATION PROCEEDINGS

With the adoption of a citation period as recommended above, no need is seen for an ex parte cancellation proceeding as provided in Section 257 of S. 1042. Such a procedure would unduly delay the date at which the certainty of a patent becomes reasonably well established and would add a cost burden to the Patent Office and the public.

REISSUE APPLICATIONS

We favor the continuance of an opportunity to apply for a reissue to correct errors, as provided in Section 251 in both bills. We also favor an opportunity to file and obtain a broadened reissue as provided only in S. 2597 provided that it is filed within one year from the date of issue of the original patent. This one-year restriction on the filing of a broadened reissue should apply even if filed for the purpose of provoking an interference (cf. Section 251 of S. 2597).

APPELLATE REVIEW

In general, the EIA prefers to defer to the bar associations in matters relating to judicial review. However, it is believed that there are no objections to the present dual routes of appeal. No compelling reasons to change from the present system have been found.

TERM OF PATENT

We favor measuring the term of a patent from its actual filing date in the United States and agree with the 20-year period adopted by both S. 1042 and S. 2597 (Section 154(b)).

IMPORTATION AS INFRINGEMENT

We favor the concept of providing protection to the United States owner of a process patent against importation of products made abroad by his process as provided in Section 271(b) of S. 2597. The limitation in S. 1042 to products made in countries which do not provide patent protection for the process by which the product was made would unduly restrict the benefits of such a concept to a few industries and would generally exclude, for example, electronic industries.

PATENT OFFICE FINANCING

There are no objections to the establishment of fees by Congress as at present.

PRACTICE BEFORE THE PATENT OFFICE

The EIA endorses Section 31 of S. 2597. There might, however, be some merit in postponing the effective date of this section (e.g. 2 or 3 years) to avoid creating hardships and undue interference with career plans of individuals currently planning to be patent agents.

COMPUTER PROGRAMS

Section 106 of S. 1042 is opposed in principle. The legislative exclusion from the patent system of any area of technology is believed unwise, particularly an evolving one such as computer programs. This is not to say that we feel that "computer programs" in any form are or are not patentable. Definition, alone, of the area intended to the excluded poses extreme difficulty. Any uncertainties in the law as relating to this area should be resolved in the courts.

INTERIM LIABILITY

We agree with the concept of interim liability as provided in both bills but favor the requirement in Section 273(b)(2) in S. 1042 that the liability commence only after the infringed claim is indicated as allowable by the Patent Office. Otherwise, the public would be required to speculate, at its peril, as to the likelihood of allowance of a published claim.

IN REM INVALIDITY

We believe that Section 294 of S. 1042 should be modified to be effective only in situations where the patentee brings the suit and the claim is held invalid.

The concept of an "estoppel" based on an adjudication "limiting the scope of the claim" would pose considerable uncertainty and is opposed. It is noted that this concept did not originate with the Report of the President's Commission which recommended only in rem invalidity (see Recommendation XXIII). Although Section 294 as thus amended would not be opposed, it is noted that instances of the abuse to which this section is directed (repeated suits on a patent previously held invalid) are relatively infrequent.

TERMINAL DISCLAIMERS

Section 253(c) of S. 1042 would make terminal disclaimers ineffective insofar as double patenting questions are concerned. On the other hand, Section 282(b)(2) of S. 2597 would permit continuance of this device to overcome double patenting rejections or holdings. The use of terminal disclaimers is most common in the case of long continuing developments where it is inconvenient or

cumbersome to combine related inventions in a single patent application. After careful consideration, we have concluded that terminal disclaimers are primarily a procedural convenience and, provided the right to sue on the patents whose expiration dates are made to coincide by such a disclaimer is maintained in the same legal entity, as provided in S. 2597, we see no substantive harm to the public. Thus, we favor Section 282(b) (2) of S. 2597.

We hope these comments are helpful and would be pleased to amplify any of them at your request.

Senator McCLELLAN. This concludes the work we had scheduled for today. I want to express my personal appreciation to all the witnesses who have cooperated by expediting their testimony so that everyone has been accommodated who was scheduled.

We are going to recess until 10:30 tomorrow morning. I have to appear before another committee to testify myself at 10 o'clock. We are hopeful that tomorrow we will have no more interference from the floor than we had today, although I am vulnerable and I might be called and have to respond to other senatorial duties and may have to suspend the hearings for a while, but anyway we will try.

The committee will stand in recess until 10:30 in the morning.

(Whereupon, at 3:05 p.m. the subcommittee was recessed, to reconvene at 10:30 a.m. Wednesday, January 31, 1968.)



FOR THE GENERAL REVISION OF THE PATENT LAWS

WEDNESDAY, JANUARY 31, 1968

U.S. SENATE,
SUBCOMMITTEE ON PATENTS,
TRADEMARKS, AND COPYRIGHTS, OF THE
COMMITTEE ON THE JUDICIARY,
Washington, D.C.

The subcommittee met, pursuant to recess, at 10:40 a.m. in room 3302, New Senate Office Building, Senator John L. McClellan (chairman) presiding.

Present: Senators McClellan and Fong.

Also present: Thomas C. Brennan, chief counsel; Edd N. Williams, Jr., assistant counsel; Stephen G. Haaser, chief clerk, Subcommittee on Patents, Trademarks, and Copyrights.

Senator McCLELLAN. Come to order, please.

Call the next witness.

Mr. BRENNAN. Mr. Holst.

Senator McCLELLAN. Mr. Holst, do you have someone with you?

Mr. HOLST. Yes.

Senator McCLELLAN. Come up, please, and take a chair.

Mr. Holst, identify yourself, please.

STATEMENT OF HELGE HOLST, CHAIRMAN OF THE BOARD, AMERICAN TOOL & MACHINE CO., ON BEHALF OF NATIONAL ASSOCIATION OF MANUFACTURERS ON PATENT LAW REFORM; ACCOMPANIED BY REYNOLD BENNETT, VICE PRESIDENT, NATIONAL ASSOCIATION OF MANUFACTURERS

Mr. HOLST. My name is Helge Holst. I am chairman of the board of the American Tool & Machine Co., but I am here as a witness for the National Association of Manufacturers.

Senator McCLELLAN. You have with you?

Mr. HOLST. I have with me Mr. Reynold Bennett, who is a member of the NAM staff. Mr. Frank Smith, whose name appears on the written statement, is not here today, but he endorses the testimony as it has been given.

Senator McCLELLAN. We can substitute for that sentence the name of the gentleman who is with you.

Mr. HOLST. Yes.

Senator McCLELLAN. And his identity. Very well. You have a prepared statement. Do you wish to read it?

Mr. HOLST. I do not wish to read it, but discuss it generally.

Senator McCLELLAN. Do you wish your statement to be printed in the record?

Mr. HOLST. No objection.

Senator McCLELLAN. I will do what you want with your statement.

Mr. HOLST. Yes, please.

Senator McCLELLAN. The statement will be received and made a part of the record. You may highlight it or make such comments as you like.

Mr. HOLST. First, I would like to say, NAM is interested in patents because NAM is interested in promoting business and also in helping business to serve the community. We consider that patents are an important means to this end and, therefore, NAM has a patents committee, and Mr. Smith, who is not present, and I are both members of that committee. Mr. Bennett, who is my associate, is a staff executive from that committee.

In our testimony, we would like to emphasize, because we consider that it is important, that the patent laws of this country are concerned not only with the interests of inventors but also of the public, and we believe that this dual concern requires a balancing of interests, not only in the constitutional provisions, but in any amendment thereto which may now be suggested.

In a number of points I will mention this because it will indicate why we do take positions that we do.

In the interest of not getting lost in too many issues, I will concentrate on only a relatively few which we consider to be essential, and among these points we consider that it is essential that patent laws keep step with the times, and also recognize that the United States is now more of an exporting nation than it has been in the past, and that there is, in fact, a real interest in this country in being able to protect its patented ideas and other intellectual properties abroad as well as here, and that in doing so it must proceed in a manner which will not cause reaction abroad if we here treat foreigners differently from our own citizens.

I may say that interest in patents, which we all in this room know has been stirring for some years in the United States, has likewise been an active consideration abroad for several years. NAM, including myself and Mr. Smith, have participated in a number of these meetings, and we are impressed with the fact that abroad as well as here there is a considerable spirit of cooperation and a willingness to accommodate among nations because of a recognition of the interests of each nation—its inventors, its businesses, and also its public—in sound and, as nearly as possible, reliable patents and other similar protection.

We know that the President's Commission on the patent system was an effort to explore for this country a sound development of the patent system, and we consider, having studied the report and knowing a number of the individuals who have been involved in that study, that the report of the President's Patent Commission is a profound and sincere and, we believe, a very competent effort to review the patent system and its past accomplishments in the light of its future needs, and in doing so, not to lose sight of the fact that the public as well as the inventor has an interest in the patent system. NAM has had an active part in trying to make the results of the President's Commission understood, and NAM has endorsed the report in general. We know now that we are concerned with a number of patent bills and with the

total subject of patent reform. Therefore the comments that I am going to be making are not addressed to a specific bill, but rather to issues.

The first point I would like to discuss—and please, Mr. Chairman, question and interrupt, I am not giving a fixed speech—the first subject which seems to me worthwhile to consider is the question of first to file as against a purely first to invent.

My friends who are practitioners in this field tell me that as a matter of fact even in the United States practice an accomplishment is far more nearly on a first to file than might appear, and that it is only a relatively small proportion of cases in which the first to file is not also the first to invent.

Senator McCLELLAN. I wondered about that. I wonder if anyone can tell us the number of cases, the ratio.

Mr. HOLST. I believe that Mr. Graves, who is going to testify later, may be able to do that.

Senator McCLELLAN. Very well. I think we should have in the record just how important that is.

Mr. HOLST. I have discussed the subject, and the figures I have heard would indicate that the number of times when a patentee obtains a valid patent, if he was not the first to file, is very few indeed, less than 10 percent, perhaps as few as 3 or 4 percent. So that the proposal to be guided, at least in part, by a first to file, is really not as revolutionary as it may sound, although it does sound as though you might be issuing a patent to someone who was not the first to invent. But I think that in this case, as in many others, we have the public interest to weigh against the purely private interest of the inventor and I may say that we also have the interest of other inventors and their employers, in wanting to know whether or not a specific area has already been preempted by someone who is working on it, because to work for a second time and to spend both talent and funds in an area which is in the process of being preempted by someone is wasteful and is not truly in the economic interests of the country.

Therefore, patents and related literature are constantly being searched as a means of learning whether work is being done in a particular field, regardless of whether or not a patent will or will not be issued.

But on the subject of first to file, we endorse the idea recently advanced by the Department of Commerce that a tempering of this first to file would be a compromise to allow a relatively brief period in which, if an inventor who was not first to file can show, with good and solid evidence, that he was, in fact, a prior inventor.

Senator McCLELLAN. In other words, the first inventor, if he exercises diligence to assert his claim within a year's time.

Mr. HOLST. Within a year's time; yes, sir. That sounds to me like a sensible approach. It would also have the benefit of permitting perhaps a little more careful filing of applications and the inclusion of more solid data in the applications, because of a feeling that you do not have to rush into the Patent Office. But we do not favor an indefinite deferment or a reaching back into all kinds of prior dates.

And, incidentally, I would again suggest that in allowing any inventor to reach back before the date to file, that we treat foreigners just the same as if they were residents of the United States.

Now my second point. What prior art should be regarded as anticipating an invention? Obviously, it would be ideal if all prior art could be known, not only American but foreign, but we are far from this ideal, and we are living in a practical world.

I believe that the prior art which should be held to be a bar to invention should be that art which can be found by a reasonable search, and as we improve our search techniques, this art should be made more comprehensive.

I have been participating in some foreign efforts along these lines, and I know that considerable thought is being given to make searches available in different parts of the world that will be comprehensive, and to make such searches comparable, if they are carried out in one part of the world and another.

Our own Patent Office under Commissioner Brenner is involved in this kind of effort, and as rapidly as possible I feel that prior art should be available to be cited against an invention, if that art can be found with a reasonable search effort. Certainly we can begin with accepting issued patents anywhere in the world as anticipation, but the search must be wider than that, if in fact the prior art can be searched.

Now, on the subject of publication. Here again I believe that we have to find a reconciliation between the interest of the public and of the inventor. I have friends who are inventors who are vocal on this subject, and they would much prefer that there be no publication until there be an actual issued patent, and they likewise would prefer that they be under no haste to file that patent.

I do not believe, however, that this is in the public interest, because, as I mentioned, patent literature as well as other literature is constantly being searched by those who wish to engage in research and in expensive product development, in an effort to find out what is being done, and what is not being researched.

In the interests of definiteness of information, publication as early as possible would be desirable, but not so early that the publication is inadequate. Here again I believe that a reasonable compromise would be that publication should become more or less mandatory within such a time as 24 months, unless for some reason there has been some intervening circumstances which have prevented the prosecution of the patent, for security or other reasons.

This would give the inventor a reasonable time in which to proceed without disclosure, and yet it would compel disclosure in a reasonable time, so that the information would then become available. Making the information available does not deprive the inventor of his rights, because what is being published is in fact an attempt to get patent protection.

Now, as to the term of a patent. I believe that there is no disagreement in the testimony before you that it would be well for the term to run from the filing of the patent application, and that such a term as 20 years would be an appropriate term.

Senator McCLELLAN. What is the term now, 17?

Mr. HOLST. 17 from issuance.

Senator McCLELLAN. This doesn't extend the term?

Mr. HOLST. It does not extend the term, and it does put some pressure on prompt prosecution.

My next subject, and I do not know how much controversy there is on this subject—I do not believe there is much—is the prevention of infringement of U.S. patent rights by importations into the country. It seems to me proper to provide in our patent law that the importation into this country of an article which would infringe an American patent is itself an infringement, even if the infringement would only constitute the violation of a process patent. I see no real need for refinements and complications in this provision. It seems to me that it is desirable that laws which are going to be enforced be reasonably straightforward and understandable.

Now, on the subject of fees for the filing, prosecution, and issuance of patent. Here again the subject is one which has to balance between the rights of the inventor or a private right, and the right of the public. Since it is in the public interest to have patents because of the jobs and goods and services which they stimulate and create, some portion of Patent Office expense is a proper general public cost.

On the other hand, on the comparable basis that it is fair to ask a patent applicant to pay a fee commensurate with the services or the specific actions which he is requesting of the Patent Office, it appears to us that a fair balance is to arrive at equitable fees proportionate to the service being asked, but not to ask that the fees cover the total cost of the Patent Office.

We likewise do not at this time see that it is in the interest of Americans to adopt use charges or fees during the life of the patent as is the practice in some European countries.

Now, on my last specific point, harmonization of the U.S. patent practice with the practice in the rest of the world. I do not believe that anyone has advocated that U.S. practice should blindly adopt the practices of other countries. There is much to be said in favor of making our system consistent with other patent practice, but that can well require that other practice be modified along some of the lines of our own patent practice.

In our meetings abroad with representatives of foreign patent offices and foreign businesses as well as practicing patent attorneys, we have found a considerable willingness on the part of Europeans, and even Russia, to engage in mutual accommodation. We believe, therefore, that harmonization can be achieved, which is a give and take proposition.

We do not advocate harmonization just in order to be a good fellow with the rest of the world. Our proposal is that it is in the interest of American business and American inventors to be able to obtain patents abroad with more certainty as to the validity of those patents, and with as little cost and variation in the patent applications and their prosecution as possible.

Such simplified prosecution and reduced cost will come about to the extent that the laws of other countries are more uniformly and more nearly like our own. We believe that the best practices of the various patent offices do provide a basis for arriving at a reasonable harmonization, and that it is in our interest to the extent that we can to make our own national law approximate the law or at least be consistent with the developing interest in international patent protection.

Let me now conclude. Because of our belief that patents are important to business, not only in the United States but throughout the

world, and that U.S. business has interests which can be better protected by patents abroad than without such patents, we are pleased to see an effort being made to strengthen the U.S. patent system and to make it possible for American interests to obtain foreign protection more uniformly and at less cost and with greater speed.

We likewise approve efforts being made to make information, positive information, as to what is being done, and what patent protection is being sought, more quickly and definitely available. We believe that this is in the interest of inventors themselves, businessmen, entrepreneurs, and certainly in the interest of research. We believe that this information should be available as early as is feasible without undue sacrifice to the rights of any of the parties, and that in doing so, we will avoid waste and duplication, and permit limited resources and limited talent to be applied more productively than if they were engaged in duplication.

We consider that the export of American goods and technology, and especially the latter, is dependent on patents, and is in the U.S. national interest as well as private interest. The income coming to this country from such exports of know-how, we are told, is in excess of \$1 billion a year. This is a significant contributor to the balance of payments, and we believe that the patent system should be cognizant of that, and should take the developments which will tend to promote and optimize U.S. exports and the resulting inflow of income.

Because we believe that the patent system of this country as well as of others is a major contributor to the economic development of this Nation as well as others, and contributes to private lives through improved goods and services as well as jobs and income, we are glad to see an effort being made to bring and to keep the U.S. patent system up to date, and in step with current needs.

That is all the statement that I intended to make, Mr. Chairman.

Senator McCLELLAN. Thank you very much, Mr. Holst.

Mr. Bennett, do you have a statement?

Mr. BENNETT. May I talk to Mr. Holst?

Senator McCLELLAN. You may.

Mr. HOLST. Mr. Chairman, on the subject of publication, as the Commissioner told you yesterday, he has inaugurated steps within the U.S. Patent Office itself by which the handling of patents has been considerably accelerated to the point where I believe that the matter of reasonably early publication will be academic, because he will have achieved it, and this without any necessary statutory regulation. That is certainly the intent of the President's Commission. The Commissioner was a member of the Commission. The Commission included very able and competent people from outside as well as from inside government. That was their conclusion, and the Commissioner is well aware of this. He is also himself involved in some of the foreign efforts at patent searching and the availability of information and he is very much involved, as are we, in efforts to accelerate and improve search as well as publication.

Senator McCLELLAN. All right, gentlemen, thank you very much.

(The prepared statement of Mr. Holst follows:)

STATEMENT OF HELGE HOLST AND R. FRANK SMITH ON BEHALF OF THE NATIONAL ASSOCIATION OF MANUFACTURERS

My name is Helge Holst. I am Chairman of the Board of the American Tool and Machine Company. With me is R. Frank Smith, General Patent Counsel of the Eastman Kodak Company. This testimony is presented on behalf of the National Association of Manufacturers, a voluntary association of business enterprises of all sizes and located in every state, dedicated to the promotion and improvement of business and its contribution to society.

(1) Testimony Aimed at Essentials

This statement is directed to what we regard as the central issues of the need for national patent law reform and related proposed legislation. It likewise is intended to emphasize public as well as private interest in the patent system. At the outset we wish to urge that in times of rapidly advancing technology and expanding world trade, including U.S. exports of goods and technology, the need to update our national patent laws goes hand in hand with the desirability of facilitating patent protection of U.S. interests abroad. This will best be achieved by harmonizing international practices. For this purpose Mr. Smith and I both represented the NAM in recent conferences at Geneva with the International Patent Bureaux ("BIRPI") and other public and private world organizations. The meetings have related particularly to the proposed world Patent Cooperation Treaty.

(2) Creative Ferment in World Patent Systems

About three years ago, the NAM Patents Committee initiated a series of international conferences on patent matters which convened global as well as national industrial property leaders to consider the crisis confronting the scientific and industrial world as well as governmental administrative offices. Representatives from developing countries as well as industrialized nations and the U.S.S.R. have participated in these important meetings. We are pleased to report that a spirit of cooperation and accommodation has permeated these discussions which have been centered on means for relieving the serious burdens facing industrial property offices throughout the world, as well as expediting and reducing the cost of obtaining patent protection. We wish to note that underlining our efforts is the aim of encouraging effective research and discovery and invention which will help bring a better life for people everywhere.

(3) Study by the President's Commission on the Patent System

The NAM Patents Committee has been keenly interested in the events leading to the Report of the President's Commission on the Patent System and the subsequent legislative proposals. We consider this a profound and competent effort to evaluate the present system and to propose constructive changes in the interest of subsequent legislative proposals. We consider this a profound and competent effort of the public as well as inventors. Immediately following the release of the Commission's Report, the NAM passed a resolution applauding this sincere effort to propose improvements consistent with present needs and the requirements of decades ahead. NAM has likewise held meetings to assist in public understanding of the issues and the recommendations of the President's Commission.

(4) Patent Reform

When the NAM Patents Committee reviewed S. 1042 the group directed its attention to what it considered to be the highlights of the bill from the standpoint of importance to industrial organizations, as well as the public interest.

(5) First to File, Properly Qualified Can Be Helpful to the Inventor and the Public

In its deliberations, the Committee raised serious questions over an unqualified acceptance of "first to file" inventors as patentees (Sec. 102). Nevertheless, in recognition of the benefits to all from early and correct information, support was voiced toward exploring solutions which might retain desirable features of the "first to invent" basis and combine them with valuable aspects of the "first to file" system as an imaginative step in its own right as well as a move towards international harmonization and cost reduction.

We believe that positive consideration should be given to the proposal being made by the Department of Commerce and Patent Office to adopt a limited "first to file" approach while at the same time providing protection to qualified applicants by permitting them to contest the issue of priority and to establish dates

of invention not more than a limited time prior to a challenged filing date. This approach would encourage prompt disclosure and promote early use of new technology. Moreover, it would lessen the fears of hastily or incompletely prepared disclosures arising from a strict first-to-file rule under which patent applications might be submitted before proper data was available to permit complete and correct disclosure.

(6) Prior Art—Only As Broad As Searchable

With regard to openly extending "prior art" to include knowledge, use and sale in foreign countries, we sympathize with this objective but we hesitate in outright support of this proposal because of the near impossibility of operating under such a standard and the expenses involved and the further fact that this would not really coordinate with practice abroad (Sec. 102). Nevertheless, we are sympathetic to the view that this country should work with other nations in defining a universal standard of prior art which ultimately might be adopted everywhere. Operation under such a policy obviously would assure of the soundness of patents issued pursuant to such practice. Naturally, we propose acceptance of an issued patent in any country which is a member of the Paris Union as anticipation, but that as rapidly as arrangements can be made for valid wider search that prior art be made as wide and as inclusive as such art is searchable.

(7) Publication—As Early As Feasible

The matter of arbitrary publication of applications, i.e., prior to issuance of allowability of at least one claim, created concern in the NAM group (Sec. 123). An inventor, of course, demurs to having his invention revealed to the public before the scope of his protection is determined. On the other hand, we favor the earliest feasible public disclosure. A basic goal to be achieved by the patent system in the public interest is to place fresh technological knowledge in the stream of research. For these reasons we have been pleased over administrative events in the Patent Office that would make automatic publication after 24 months from filing largely academic. This applies equally to any need for standby deferred examination authority (Sec. 191). We are, nevertheless, sympathetic to a requirement for early publication in situations involving protracted proceedings, as when an appeal would slow up final decision.

(8) Patent Term To Date From Filing

The NAM has long advocated enactment of legislation in accordance with Sec. 154 calling for a twenty year patent from the date of filing. We feel that it is in the public interest as well as to the benefit of applicants that patents be issued as soon as possible after applications have been filed. This would help diligent prosecution practices generally. However, in appropriate cases an additional period of time should be allowed to overcome delays due to circumstances outside of the applicant's control.

(9) Prevention of Infringement by Importation

We are also in general sympathy with the proposal of Sec. 271 (b) relating to importations. We recommended that the section might be strengthened by wording it as follows: "Whoever, without authority of the patentee, imports into the United States a product made in another country by a process patented in the U.S. shall be liable as an infringer." Both the public and patentees would find this beneficial. Any narrower approach to the import problem seems to interject unnecessary difficulties while lessening benefits to U.S. inventors and those who have supported them.

(10) Fees Commensurate with Service

With regard to administrative financing (Sec. 41), we favor that Patent Office fees, fixed by Congress, which are consistent with the principle that each fee should be fairly related to the cost of providing the service to which the fee applies and that the general public should bear a fair proportion of the cost of operation of the Patent Office. We do not favor imposition of any levy on patents subsequent to the date of the grant. The Legislative Branch would find this approach helpful in determining the fiscal matters affecting the Patent Office.

(11) Harmonization of U.S. Patent Practice Without Loss of Quality

As a general observation on the harmonization of world patent systems, we advocate that to the extent that harmonization of U.S. practice with prevailing foreign practice can be attained without injury to the quality of the U.S. patent

system, such harmonization should be introduced as a step toward the desired goal of the international harmonization of patent practice. Where, however, U.S. practice appears to be superior, it is recommended that appropriate Federal agencies make efforts to secure harmonization compatible with U.S. practice.

(12) Conclusion

We are pleased that efforts are being made to develop immediate and long term means for alleviating the serious difficulties confronting patent offices all over the world, including the U.S.

We approve also the steps intended to strengthen and assure the validity of issued patents. We likewise endorse the objectives of making information available to all—inventors, researchers, entrepreneurs, and the public—as early as feasible. This, we feel, will avoid waste and duplication at the same time that it stimulates pertinent development.

In addition, we approve efforts taken to facilitate U.S. obtainment of patent protection abroad as a means of increasing U.S. export of goods and technology. Revenue from such exports is significant to U.S. national as well as private interests. U.S. Department of Commerce statistics report that American companies receive payments from abroad for the use of intangible property—largely patents and know-how—in excess of \$1 billion annually. This plays a very important role in our balance-of-payments account.

Because we believe the U.S. patent system to be a major contributor to the progress of the American economy, we support the efforts being made to bring this system into accord with present needs, domestic and international. The nation must go forward and take the steps necessary to encourage sound industrial property administration abroad as well as at home. The opportunity for representatives of industry to participate in these discussions is appropriate and warmly welcomed.

Senator McCLELLAN. Dr. Cairns, identify yourself for the record please.

STATEMENT OF ROBERT W. CAIRNS, PRESIDENT, AMERICAN CHEMICAL SOCIETY, ACCOMPANIED BY PAULINE NEWMAN, CHAIRMAN, AMERICAN CHEMICAL SOCIETY'S COMMITTEE ON PATENT MATTERS AND RELATED LEGISLATION

Mr. CAIRNS. My name is Robert W. Cairns. I appear before you in my position as president of the American Chemical Society. Accompanying me is Dr. Pauline Newman, chairman of the American Chemical Society's Committee on Patent Matters and Related Legislation.

I am a vice president and a director of Hercules, Inc., and I am directly responsible for the chemical research and development activities of that company.

Pauline Newman is a professional chemist and a lawyer with the chemical divisions of FMC Corp.

Senator McCLELLAN. Very well. I notice you have a prepared statement. Do you want to highlight it?

Mr. CAIRNS. I would prefer to read it and ask for any questions that you may have as I proceed.

Senator McCLELLAN. You may do so. Please proceed.

Mr. CAIRNS. We appreciate the opportunity to discuss with you the bills on reform of the patent laws which are now being considered by this committee. The viewpoint which we express is that of the chemical scientific community, as represented by the American Chemical Society.

The American Chemical Society was founded in 1876, and chartered by act of Congress in 1937. Its membership consists of over 100,000

professional chemists and chemical engineers. The society is required to devote itself to the advancement of chemistry, including the promotion of chemical research and diffusion of¹ chemical knowledge, as set forth in the second paragraph of the society's charter:

Sec. 2. That the objects of the incorporation shall be to encourage in the broadest and most liberal manner the advancement of chemistry in all its branches; the promotion of research in chemical science and industry; the improvement of the qualifications and usefulness of chemists through high standards of professional ethics, education, and attainments; the increase and diffusion of chemical knowledge; and by its meetings, professional contacts, reports, papers, discussions, and publications, to promote scientific interests and inquiry thereby fostering public welfare and education, aiding the development of our country's industries, and adding to the material prosperity and happiness of our people.

THE INTEREST OF THE AMERICAN CHEMICAL SOCIETY

The American Chemical Society is interested in the patent system, and therefore in legislation which affects the patent system, because:

(1) Patents contain a major portion of the published technological (i.e., applied scientific) literature. Without this medium of disclosure most of this technology would almost certainly never be published; without this reservoir of published technology, chemical industrial growth and the public at large would be less well served.

(2) The grant of patent rights, under a system which favors strong and enforceable patents, encourages the advance of technology and the resultant industrial growth by providing a reasonable incentive both for the disclosure of the results of innovation and for the commercial development of new products and processes, thereby further expanding our economy.

As our technology becomes more and more complicated, and as it becomes more and more expensive to make technological improvements, the need for an incentive to disclose, and to develop, such improvements has increased. We believe that the principle of a strong patent system is even more valid now than it has been in the past.

The American Chemical Society is in complete accord with the statement of objectives set forth in the 1966 Report of the President's Commission on the Patent System. Since then, many valuable suggestions have been made to achieve these objectives, and many such suggestions appear in the bills before us. Our remarks here will be directed to the general principles with which these bills treat, in terms of changes from the present law and practice. We have tried to foresee, and evaluate, the effect of these changes from the viewpoint of the responsibilities and interests of the American Chemical Society: to advance chemical science and technology, to increase and disseminate chemical knowledge, to encourage chemical contributions to our country's industrial growth, and to improve the chemical literature on which many practical developments must be based.

We have concluded that some of the major proposed changes may have consequences for chemistry which may not be in the best interests of the science and of the public. These consequences may well be

¹ The ACS is the largest publisher of scientific information in the world, and publishes 17 authoritative scientific journals and three general chemical periodicals; through its Chemical Abstracts Service, the ACS is the abstractor for the world of chemical literature, including chemical journals in 54 languages originating from more than 100 countries and chemical patents emanating from 24 countries.

peculiar to chemical arts, because of the complexity of chemical technology and the vastness of the chemical literature. We call your attention to some of these difficulties now, as applied to the proposed legislation.

THE FIRST-TO-FILE PROVISIONS

We recognize that this is the central feature of the patent reform which is contemplated in S. 1042. Nevertheless, we would accept only with great reluctance the principle of first to file because we believe, first, that it contains a basic inequity and, second, that it could impede, not promote, the flow of useful scientific and technological knowledge.

The President's Commission has made a case for expediency in achieving speed of disclosure and avoidance of the difficulties of interference procedures—although we do not agree with their statement that "the first to file is more apt to be the inventor who first appreciated the worth of the invention and promptly acted to make the invention available to the public."

We have given careful study to the implications of such a radical change in the present system. We believe that due to the nature of American chemical industry, there will be a race to the Patent Office to file the preliminary applications provided for in S. 1042, or in fact to file any applications under a first-to-file system. (This, we recognize, is the goal of the proposed system.) However, this in itself will create many new problems for chemists. A race to the Patent Office will in many cases, in the chemical arts, result in the hasty filing of incompletely conceived and poorly elaborated disclosures. S. 1042 provides that these preliminary applications may be revised and put in more acceptable form as "complete" applications within the first year after filing. This provision may ameliorate the adverse effects of a too-hasty filing, but further consideration must be given to the sequence following the filing of the "complete" applications, since few modern chemical inventions can be properly delineated in such a short period of time.

We believe that the enactment of the first to file, or modified first to file, change in the patent law must take into account the increasingly complex nature of modern chemical technology. We have attempted to balance the advantages of the earlier disclosure which might result if all inventors were to be forced to rush to the Patent Office with each new idea (just in case it later was found to be valuable)—against other consequences of such a system. We have concluded that an absolute first-to-file system, as contained in S. 1042, goes too far in penalizing, by depriving of any rights or remedy, a diligent prior inventor who because of the complexities of his invention requires time to properly define it before filing, or who does not have the knowledge or resources to win the race to the Patent Office.

The sole justification for a first-to-file system is to encourage rapid disclosure of technological improvements. With this goal we are in wholehearted agreement. Therefore it is only after the most comprehensive analysis of the probable results of the practice of this system that we have concluded that the disadvantages of the unmodified first-to-file principle outweigh the advantages:

(1) The larger companies, with in-house patent counsel and patent-wise ways, could have an advantage over the smaller company or the individual inventor. Yet many useful inventions, and industries based thereon, have evolved through the smaller inventor. It should not be necessary to force an individual inventor to add a heavy and continuing patent burden at an early stage in the development of his idea, before he knows whether or not it's a valuable or workable idea. (It is also primarily the smaller inventor who would suffer from elimination of the 1-year grace period and the broadened definition of "prior art" in S. 1042, and we believe that the provisions of S. 2597 which reflect the present practice are more in keeping with a practical and fair interpretation of the patent philosophy.)

(2) Preliminary applications are an essential part of the first-to-file concept as contained in the report of the President's Commission and in S. 1042. Although we are in accord with the objectives of providing an expedient and inexpensive means for an inventor to obtain protection for his invention, we believe that preliminary applications can be a trap for the smaller inventor by appearing to promise him protection that may not really be afforded. According to S. 1042, a complete application would carry the priority date of the preliminary application only if it fulfills all technical requirements of the disclosure. It appears, therefore, that a preliminary application must be as carefully prepared as a complete application.

(3) Applications filed under the pressures of any absolute first-to-file system may also, we suggest, be subject to abuse. There is no requirement that the preliminary disclosure be a report of actual work carried out. Priority is acquired whether or not actual work was performed, as long as the inventor guessed correctly in the preliminary disclosure.

This, we submit, is not the sort of technical disclosure which is of value to the scientific literature. A system which encourages guesswork rather than hard experimentation, and awards valuable rights therefor, in our opinion would tend to discourage rather than encourage technological research, and surely is an abuse rather than a benefit of a patent system.

A MODIFIED FIRST-TO-FILE PROPOSAL

We believe that some procedure must be retained whereby a diligent, prior inventor who loses the race to the Patent Office (even by a day) is not cut off completely by a later, but fleeter, inventor. The ACS has previously, informally, suggested modifications to the first-to-file/preliminary application procedure. These modifications were designed to have the combined effect of accelerating disclosure by adding incentives over those of the present system and reducing some of the burden of patent interferences, yet as compared with S. 1042 reducing the penalties on a bona fide prior inventor or user, and reducing the urgency of filing on incompleting inventions or on inventions of untested value. The result of modifications such as these, we believe, is that patent applications will, in general, be filed earlier than they are now, yet there will be sufficient flexibility to correct inequities in patent ownership and deficiencies in patent disclosures. These modified procedures are as follows:

(1) Issuance of the patent to the first to file, but with provision for another applicant to contest the issue of priority after publication of the invention. The parties to such a contest could be limited to an effective date of invention not more than 1 year prior to their effective U.S. filing dates, assuming that preliminary applications are provided for in any new law. Such a 1-year rule would expedite the proceeding and could provide an incentive for prompt filing of preliminary applications. The decision as to priority could be reached by the Commissioner based on a simplified legal method for proving prior invention. The priority decision should be appealable to the courts as in the case of other Patent Office decisions.

This proposal accepts the principle of preliminary applications in S. 1042 because, weak as they are, preliminary applications provide an initial period of 1 year for an inventor to begin to develop a complex invention. However, we do not believe that it is vitally necessary to retain the concept of preliminary applications in a modified first-to-file system such as is here proposed, but that the same result could be achieved by extending from 1 year to 2 years the period discussed above.

I read the testimony yesterday of Commissioner Brenner, and I think here if there is a move to eliminate preliminary applications, that our recommendation is definitely on the 2 years rather than on a 1-year period. One year is inadequate for completion of even a relatively simple chemical invention; a minimum of 2 years, absent preliminary applications, is, we believe, necessary to achieve the goal of complete and useful technical disclosures in patents.

(2) The American Chemical Society's modified first-to-file proposal also contemplates protection of a bona fide prior inventor who does not himself file a patent application. In the chemical industry, we know of many instances where "modest" improvements—a temperature change, a different solvent, a homologous compound, an equipment modification—have not been made the subject of patent applications because of honest doubt as to their patentability—only to find that someone else has convinced the Patent Office otherwise. Under the present rules a prior inventor is protected. We believe that such protection is necessary and fair. One suggestion for achieving such protection is that it take the form of a personal defense against enforcement of the patent, the defense being available only to a prior inventor and those on whose behalf the invention was made, the patent retaining its enforceability against unrelated third parties. We feel strongly that a reasonable and practical understanding of chemical industrial practices requires some such safeguard. We recognize that this safeguard does, in a limited way, retain some of the principles of interferences, but we believe that this situation would arise on far fewer occasions; only inventions which were actually being practiced would be affected, and only in the course of infringement litigation.

EARLY PUBLICATION OF PATENT APPLICATIONS

The objective of the earliest possible disclosure of technical information is unequivocally endorsed by the American Chemical Society. However, we have concluded that on balance the public interest will not be served by the requirement of section 123(a) of S. 1042 that

applications be published before they have been found by the Patent Office to contain patentable subject matter.

We believe that there are three significant reasons for delaying publication until some patentable subject matter has been found:

First, under today's conditions, chemical (and other) inventors are dealing with very complex technologies. Many important inventions now involve the controlled interplay of many technical parameters. It often takes several years to establish a clear technical definition of such inventions for the purpose of completing patent disclosures and determining proper claims. We believe that the early publication of the complete application (S. 1042) and the consequences of such publications in the absence of allowed claims, do not adequately take these factors into account—at least insofar as they relate to chemical patents.

Second, the scientific literature is already burdened, almost to the point of crisis, with published material. The proliferation of chemical literature which may be redundant or trivial can only dilute the value of that which is worthwhile by burdening the abstracting services, the libraries, and scientists and engineers themselves, and make it more difficult to identify that which is valuable. I know of no scientific journal which publishes articles automatically, without prior review by other scientists competent in the field. We believe that patent applications also merit and require that their publication be preceded by an evaluation of their technical content and contribution.

Third, we believe it is desirable to encourage the patenting of inventions rather than their practice as trade secrets. Inventors may forego the filing of patent applications, particularly on chemical processes, if they do not have reasonable assurance that they can retain their proprietary information as trade secrets if their patent applications are not found, after examination by the Patent Office, to contain patentable subject matter. This would reinforce an already present trend to secrecy, and the loser would be the public, in being deprived access to this technical information.

We recommend, therefore, that publication occur only after the finding of allowable subject matter. We have not reached this conclusion easily, but only after careful weighing of all the factors involved. As now issued, patents often contain important and useful technical information, of significant value to the applied researcher. A reduction in their overall quality as technical literature would also reduce the respect with which they are held as sources of information.

RESTRICTIONS ON CONTINUATION-IN-PART APPLICATIONS

From the viewpoint of chemical technology, we believe that the continuation-in-part practice under the present law is necessary for the proper elaboration of complex inventions which, because of the extensive research programs required, evolve over long periods of time. Such long periods of development are particularly characteristic of chemical inventions. The limitation placed upon continuation-in-part applications by section 120 of S. 1042 would, we believe, place unnecessary burden upon such orderly programs of investigation.

If a limit is set on continuation-in-part, we believe that it is primarily the public interest which would suffer thereby: the public interest is best served in having as complete as possible a disclosure

and definition of an inventor's contribution. In complex technologies such as chemistry, it could well be that an applicant might file a patent application sufficiently complete to support claims which would protect his invention—but if he is permitted to file only one continuation-in-part, as provided in section 120(b) of S. 1042, the applicant would be forced to refrain from any future filing of continuations-in-part which might enhance the disclosure. As a result, the public will often be deprived of disclosures of the developing elements of complex inventions during the latter stages of pendency.

If the period of exercising any patent monopoly is limited to 20 years from the first filing date of the parent application, the rights of the inventor would not be extended by adopting a less rigid continuation-in-part practice, and any incentive for abuse of this practice would disappear.

IMPORTATION

We endorse enactment of a provision such as section 271(b) of S. 2597. Under this section, the importation of a product produced in a foreign country by a process patented in the United States would be an infringement. We believe it is unreasonable to require a small U.S. inventor, who has no interest in manufacturing in any foreign country, to seek patent protection throughout the world in order to avoid pirating of his invention in the United States.

In our opinion section 271(b) of S. 1042 is inadequate in limiting protection to products coming from only those countries in which patent protection for the process is not available. A large corporation may be able to file the necessary number of foreign patents; a smaller inventor may not be willing or able to make this investment at an early stage of development of his invention.

The more comprehensive provision of S. 2597 is in accord with recommendation XXI of the President's Commission. All manufacturing industries may be benefited thereby and thus may enter into the patent system and disclose their process improvements, rather than keep them as trade secrets.

We note also that this provision is in accord with the policy of harmonization of U.S. patent laws with those of other major industrial nations.

FEES

Since patent fees which are not excessive are of vital concern to the small inventor, whose interests are of particular concern to the American Chemical Society, we favor retaining the setting of these fees in the hands of Congress. It is the prerogative of the Congress to set fee schedules for administrative agencies and we believe that this authority should not be abdicated.

COMPUTER PROGRAMS

Although the American Chemical Society takes no position with respect to the broad question of patentability of inventions involving computer programs, we do feel considerable concern with the scope of the language of section 106 of S. 1042. This section would appear to prohibit patents on any chemical process which is ordinarily carried out with automated equipment. Until a better definition of the ex-

cluded subject matter can be furnished, which is completely free from implication of restriction upon subject matter of such vital interest to the chemical industry, we feel that this section is unsatisfactory.

TECHNICALLY TRAINED PATENT AGENTS

This has come up before. The American Chemical Society opposes any legislation, as proposed in S. 2597, which would deny the right of chemists, who are qualified to become registered as patent agents but are not admitted to the bar, to represent inventors in the preparation and prosecution of patent applications. The principle of a strong patent system, at a time when technology has become exceedingly complex and technological improvements more expensive to effect, requires that persons with a strong technical background in chemistry (or other technical field) and informed about the pertinent legal aspects be permitted to assist inventors in handling the complex subject matter inherent in contemporary technological advances.

CLOSING

There are other provisions of the proposed bills which certainly impinge on chemical progress. We have necessarily confined our remarks to features of particular significance to chemical progress, and have tried to avoid as much as possible purely legal questions.

We are happy to have been invited to present our viewpoints and would be glad to provide further clarification.

Senator McCLELLAN. Thank you very much.

Miss Newman, do you wish to make any comment?

Miss NEWMAN. No, thank you. I have nothing to add.

Senator McCLELLAN. Very well. Thank you.

Call the next witness.

Mr. BRENNAN. Mr. Graves.

Senator McCLELLAN. Come around, Mr. Graves.

STATEMENT OF EBEN M. GRAVES, PRESIDENT, AMERICAN PATENT LAW ASSOCIATION

Mr. GRAVES. May I have on the record that I do intend to highlight?

Senator McCLELLAN. Your statement, if you request it, will be received and printed in the record in full, and you may highlight it as you choose.

Mr. GRAVES. Thank you.

Senator McCLELLAN. The statement will be received and printed in the record.

Very well, you may proceed.

Mr. GRAVES. Mr. Chairman, I am Eben M. Graves, a partner in the law firm of Brumbaugh, Free, Graves & Donohue in New York City.

I am speaking here as president of the American Patent Law Association.

I intend to give only some general highlighted views, because there seems to be some unanimity of views expressed as to the concern of 1042. We have treated it in some detail in my statement, and I appreciate that it will be considered there. And others have made excellent statements expressing the same concern that we have.

I do want to state that I think we are all clearly in unanimous support of the objectives of the President's Commission as well as the statement which the President made when he submitted the House bill.

Everyone is responsible for and concerned with keeping our patent system up to date.

I wish to state now, if I may, and just in summary, the basis by which I feel you should evaluate the opinions expressed by APLA. We are an organization of over 3,000 lawyers, specializing in patent matters. The questionnaire indicated that something over 50 percent are in private practice, less than 50 percent are in corporate organizations, and about 2 percent in the Government. Our practice represents all areas of patent matters, individuals, corporations. We represent American corporations abroad and foreign corporations in this country, the prosecution of applications, drafting them. We are both for and against patents, both sides of the docket, both as to validity and infringement. We are also on both sides of antitrust matters offensively and defensively.

I think we have a broad background on which to speak.

Also I want to mention, and this is treated in some detail in our report, the extensive amount of time which our organization, through its committee procedure, has spent reviewing this matter of the revision of the patent laws for over three years. I think I can say without any contradiction that we have probably explored it in as great a depth if not greater depth and with a more open mind than most any of the other organizations of which I am familiar. I mention that, and it is in detail in my statement, so it can be used for evaluation by your committee as to the basis of our recommendations.

The position of the association, which has been expressed in some 53 resolutions, is set forth in item 1 of the appendix attached to my statement. It is believed that the substance of these resolutions is achieved, as well as the objectives of the President's Commission and the President's statement, most nearly by S. 2597, the so-called Dirksen bill, and we strongly urge its adoption.

We also urge the rejection of S. 1042.

The ABA as indicated by Mr. McKie yesterday proposed some modifications of S. 2597. These were matters that came up at the Honolulu convention, and it also, we believe, needs one further amendment.

S. 2597 provides for contests of priority between applicants. The APLA believes that in the interests of speeding up these contests, and in the interests of getting prompt disclosure, both of which are objectives set forth by the President, that section 136(d)(3) of the APA bill or the Dirksen bill, S. 2597, should be deleted, and that an alternative procedure suggested by APLA be substituted. That procedure is set forth on pages 23 to 25 of my statement.

Very briefly that provides that in the event of conflicting subject matter between applications, the Patent Office should issue the first filed application, and then the applicant of the second to file, if he issues, may provoke an interference, that is the same as 137 of the Dirksen bill, or he may attempt to distinguish. In either event, prompt publication has been achieved and the 20-year period is running.

There has been a great deal of emphasis on this problem of interference, and in some of the statements you read you would think that interferences were the primary concern of the patent system. Actually

I understand that now the number of interferences, on the basis of the number of applications filed, is something less than one-half of 1 percent. These interferences of course are very important subject matter to the contestants.

One of the statements added as an appendix, item 3, comprises several pages of a key article written on the interference practice, and indicates that over half of the interferences were suggested by the Patent Office between applications. We believe if the suggestion of the APLA is followed as to interferences only, as between a patent and a pending application, that the number of interferences will be further materially reduced. This small percentage of interferences doesn't provide, I don't believe, any basis for a radical change in the entire philosophy of our patent system in order to meet the problems that may have been raised.

Mr. Holst, when giving his statement for NAM, spoke about this matter and you raised a question, Mr. Chairman, in regard to it. In connection with the first-to-file system, Mr. Holst said there is some indication that we now have a first-to-file system. However, this term can be confusing.

Insofar as about 99½ percent of the applications which are filed under the present system issue without an interference, they are first to file, but that term must be taken in the context in which they were filed. They were filed with a grace period. They weren't preliminary applications. They were filed after consideration, after ability to test, after there had been public use of them within this period of 1-year grace period. The first-to-file system that has given the concern to the members of the bar has been the first-to-file system as proposed by S. 1042, which is a first to file with no grace period, a race to the Patent Office, and incomplete disclosures. The statement which Dr. Cairns gave just before mine has characterized this as a very dangerous procedure. So we shouldn't carelessly use this term "first to file."

I am going to comment later on the new term of the administration—"a modified first-to-file system." I believe a more accurate term would be a modified first-to-invent system. It would be more accurate, and it would get away from this confusion, of our present first to file, if you want to call it that, and the first to file covered by S. 1042.

The problem of the first-to-file system of S. 1042 philosophically is that we believe it is a step backwards to the systems used in Europe, and which are tied in with the European economies. Both of them are quite different.

As you know, Mr. Chairman, there has been some considerable concern and a great deal of writing about the technological gap which gives the Europeans concern. We keep pulling away from them in our economy and in our technological developments. We believe that a great deal of this ability of ours to pull away and lead is based upon our patent system, and its tie-in with our economy, and we feel that to handicap either of these, by returning to the European concepts, would be a very disastrous thing to do.

There has been, beginning with the fine speech that Dr. Kincaid gave to our luncheon on last Wednesday, then the release of the letter to Senator Eastland at that time, and, finally, confirmation of the comments in the Eastland letter by Commissioner Brenner yesterday in his testimony, a most encouraging attitude on the part of the adminis-

tration, the Department of Commerce, and the Patent Office to establish a willingness to reevaluate these problems, and to develop a basis for a joint agreement with regard to them.

Dr. Kincaid said in his speech that he had personally requested the Patent Office to work with the organized bar among others "in an all-out effort to reach agreement on the best way to modernize the patent system."

Well, we couldn't agree more. Those areas which he set forth in his speech, and in the Eastland letter, and in the Commissioner's statement indicate that there is a real area of agreement. The reference in the letter to Senator Eastland, for example, to "a modification of the so-called first-to-file rule," is far from clear as to what is meant. If the several references to this phrase in the letter to Senator Eastland can be interpreted as meaning a first-to-invent system coupled with an absolute grace period, as it seems to, a 20-year patent period, and a simplified interference procedure limited to a 1-year carryback, then real progress has been made in compromising the views of the Patent Bar and the administration.

It is stated at page 5 of the administration's letter to Senator Eastland, in discussing the grace period, that if "a modified first-to-file rule" with a time-period provision as suggested above were to be adopted, that is the 20-year, it would not be necessary to eliminate the 1-year absolute grace period of the existing law. In fact, a 1-year absolute grace period would be inconsistent with a modified first-to-file rule under which an inventor would be permitted to establish a priority date up to 1 year prior to his effective filing date for interference purposes. That is the grace period.

Then Dr. Kincaid said that he was no longer pressing for universal prior art, so that that controversial area for the time being can be considered behind us.

There they are believed to be withdrawing from the preliminary application as required by S. 1042, as indicated by recommendation 6 of the letter to Senator Eastland. This, of course, would seem to be reasonable, in view of the recommendations at page 5 of the letter with respect to the modified position to permit the use of an absolute grace period. You don't need them any more.

Then as to the joinder of inventions, the administration supports the provisions of S. 2597 as well as the correction of inventors in section 111(e).

The administration also supports a provision for amending a claim of priority as discussed in their recommendation VI at page 11 of the letter.

Recommendation VII on publications approaches agreement in that the concern of the administration would be met by the American Patent Laws Association proposed that the first-filed interfering application be published; that is, would be issued.

Recommendation VIII, there seems to be a common ground with regard to section 154(a) for a 20-year term of patent.

The administration indicates at page 13 of the letter that there is agreement on this.

As to recommendation IX: Standby Optional Deferred Examination, "the matter is not of major significance at this time in view of our anticipated work schedules." This removes a controversial issue.

With regard to recommendation XI: Citation Period, it is submitted that the American Patent Law Association recommendation as to interference procedure would provide a common ground for the settlement of this issue. It is not clear, but it certainly indicates that we could reach some kind of an understanding there without great difficulty.

Recommendation XVI: Reissue, indicates the acceptance of S. 2597 position, but with an additional phrase which the administration would like to have, which is a further common ground. That should be carefully considered.

Interim liability they say merits careful study. In other words, there is an area of compromise.

The term of the patent, there is agreement as to that.

Recommendation XXIV: Civil Commissioners, this is no longer being pressed.

Recommendation XXIX, on "Classification of Information Retrieval" points out an agreed area in which both bills, 1042 and 2597 overlap somewhat.

With regard to "Unobviousness" on page 27 of the letter to Senator Eastland, the administration states that "in the context of the priority system having a 1-year absolute grace period which would be adopted by S. 2597, the 1-year limitation on disposing of references would be desirable. Thus, if the committee were to recommend the priority system embodied in S. 2597, the Department would favor the reference to 1 year of section 103 of S. 2597."

All summed up, I believe that there is now sufficient patent as well as obscure areas of agreement between the administration position and those generally favoring S. 2597 to justify the efforts of a joint drafting committee to come up with a revised bill for consideration of your committee, and the APLA are prepared to further give of their professional manpower to facilitate that drafting, if your committee, Mr. Chairman, believes that it would be desirable.

There is one further fact which I mentioned.

Senator McCLELLAN. Do I understand you will supply the committee with one of your technicians, counsel, to advise with the committee when it undertakes to mark up the bill?

Mr. GRAVES. Yes, sir; I think it would be possible.

Senator McCLELLAN. We appreciate that offer and may very well take advantage of it. I don't say this just for the interests you represent or for whom you testify this morning but we would welcome the best counsel and the best technicians that can be made available to us. This is not an area where any of us, so far as I know, have any personal feelings or concepts that are not subject to reevaluation. What we want to do is to get the very best system we can for our country.

Mr. GRAVES. That is certainly true, Mr. Chairman, and we would be happy to recommend someone, and I am sure the other bar associations would do the same.

Senator McCLELLAN. That is right. Very well.

Mr. GRAVES. There is one further comment I want to make, which I make on page 29 of my statement, and that is we must not lose sight of the fact that as a result of the efforts of Commissioner Brenner and good housekeeping and good management, and with the additional funds which the Congress has provided in manpower and dollars, that

there has been an expediting of prosecution in the Patent Office to a point where the administration now recognizes it, and they feel they can safely withdraw from some of their requirements for prompt publication, because the prompt publication comes by way of the Patent Office.

We think that this should be kept in mind, that many of these things are not such problems but what can't be remedied by dollars and manpower within the Patent Office.

Mr. Chairman, this completes my statement on the highlights of our position, and again I say that as to details as to each of the sections of the various bills, they appear in our statement as well as in a number of the other statements which your committee has already heard.

Thank you.

Senator McCLELLAN. Thank you. I am sure with the statement which you submitted, which I have not had an opportunity to read, together with your summation here this morning, will give us very helpful information with respect to the merits of the different proposals. We are very glad to have your testimony.

Are there any questions, Senator Fong?

Senator FONG. I have no questions, Mr. Chairman. Thank you, Mr. Graves.

Senator McCLELLAN. Does counsel have any questions?

Mr. BRENNER. No.

Senator McCLELLAN. Thank you very much.

(The prepared statement of Mr. Graves follows:)

STATEMENT OF EBEN M. GRAVES, PRESIDENT OF THE AMERICAN PATENT LAW ASSOCIATION CONCERNING S. 1042 AND S. 2597

Mr. Chairman and members of the subcommittee: I am Eben M. Graves, a partner of the firm of Brumbaugh, Free, Graves & Donohue in New York City. I have been practicing patent law for over 30 years.

As president of the American Patent Law Association, I appreciate this opportunity to testify with regard to the pending bills relating to the revision of the patent statutes.

NATURE OF THE AMERICAN PATENT LAW ASSOCIATION

The American Patent Law Association has a membership of over 3,000 lawyers with national distribution. A recent questionnaire to our members indicates that about 52 percent are engaged in private practice, 46 percent are employed by corporations, and 2 percent are employed by the Federal Government. Those of our members who are engaged in private practice represent, as I do, large and small corporations, individuals, foundations, hospitals, universities, foreign interests concerned with patent rights in this country and American interests concerned with patent rights abroad. We represent clients before the courts and in the Patent Office concerned with patentability, validity, infringement problems, the granting and acceptance of license rights and defensive and offensive patent anti-trust problems. Those attorneys employed by corporations have similar patent problems related to their corporate client.

DELIBERATIONS BY THE ASSOCIATION

Our association has a long record of investigating, considering and recommending to the Congress and to the Patent Office improvements for the existing patent, copyright, and trademark systems. As a working association, we operate on a committee basis with 30 special and standing committees and have more than a thousand working members.

Our Association, of course, was very active in drafting and contributing to the ultimate enactment of the Patent Act of 1952. We have a Standing Committee on Patent Law which, of course, has been most active in connection

with the recent legislation, as well as a Standing Committee on Chemical Practice, to evaluate possible patent law revision in that specialized area. Our Standing Committee on Federal Practice and Procedure has been active in connection with the impact of suggested revisions on procedural matters. The Standing Committee on International and Foreign Law has been very active in view of the suggested changes in our patent system to conform it to the European systems.

Several years ago, we established a Special Committee on Reform of Interference Practice to study ways to reduce the time involved in determining priority contests in the Patent Office as well as to reduce the expense involved. This committee has been very active on this complex problem.

Under the appointment of the President's Commission in 1965, the American Patent Law Association established a Special Committee to Study the Patent System with instructions to consider all possible improvements. This was a most distinguished committee in composition and served a very useful and real function in bringing to the Commission, as well as to the members of our Association, thought provoking concepts of a stimulating nature. A final report was made in July of 1966 and submitted to the membership together with a questionnaire to develop the members' reactions to the committee's recommendations. As a result of the educational work that had been done, over a thousand replies to the questionnaire were received and the answers were tabulated and published. The President's Commission had the benefit of the work of the Association's Special Committee as well as the results of the questionnaire reflecting the views of our members.

Following the publication in December 1966 of the report of the President's Commission, our Special Committee reviewed the report and its recommendations and reported its views to the Association's Board of Managers. Ten of the Standing and Special committees of the Association then were assigned particular recommendations of the President's Commission for further study. These committees met in Washington in January of 1967. After making tentative recommendations, most of the committees, because of their size, began to conduct mail polls of their membership to gain the benefit of the views of the absent members. Meanwhile, S. 1042 and H.R. 5924 were introduced and were considered in association with the recommendations of the President's Commission.

In May, the Association had its two-day stated meeting in Boston and devoted the entire time to a consideration of S. 1042 and its counterpart, H.R. 5924. The most important and controversial sections of the bill were directed to the attention of six workshop sessions held the morning of the first day. Each workshop had co-chairmen selected so as to be certain that both sides of each issue were presented and considered. The workshop conclusions were submitted to the responsible Association committees where resolutions were drafted during the afternoon and evening. The committees drafted over seventy-one resolutions directed to the more important features of the proposed legislation. These resolutions were given full consideration at the meeting of the Association members the second day. Fifty-three resolutions relating to substantially all the important changes proposed by S. 1042 were adopted.

These resolutions, setting forth the position of the American Patent Law Association were published in the APLA Bulletin July-August 1967, and are submitted herewith as Item 1 of the Appendix hereto.

The introduction of the Dirksen bill S. 2597 in October of 1967, as well as other bills also directed to the revision of the patent laws, necessitated continued active consideration on the part of the Standing and Special committees of the Association. These committees met at the annual meeting in October 1967. Their interim deliberations and pollings developed into a joint meeting of the Patent Law Committee and the Special Committee on Interference Reform on January 24, 1968, where further recommendations relating to the revision of the patent laws, particularly interference practice, were hammered out.

On January 24, 1968, the Association was honored to have the Assistant Secretary of Commerce, John F. Kincaid, speak at its luncheon. It was at that time that he first announced a modification of the position of the Commerce Department with respect to the revision of the patent laws as expressed in the administration bill S. 1042.

The Association meeting on the afternoon of the 24th of January was devoted to a panel discussion of the legislation pending before the Congress to revise the patent laws. The object was to develop a better understanding of the revisions

proposed by the several bills. A proponent of each of the bills was present, including the Acting Director, Office of Legislative Planning of the Patent Office, Mr. Maurice A. Crews, speaking for S. 1042.

In order to facilitate this discussion, the Association, through its Standing Patent Law Committee, prepared a twenty-one page "Section-by-Section Analysis of the Patent Reform Act of 1967."¹ This analysis in chart form is an outgrowth of the one prepared by Mr. Mossinghoff, formerly of the Patent Office, but amplified as to the Association's position, clarified and corrected. Copies of this Analysis have been made available for distribution to the Committee. It is identified as Item 2 of the Appendix hereto.

PENDING LEGISLATION

It can be seen from the chart Item 2, "Section-by-Section Analysis of the Patent Reform Act of 1967" that there are now pending before the Congress nine principal bills all with the objective of improving our patent system if possible.

These bills can, in general, be divided into two groups. The Administration bill S. 1042 (HR. 5924) is based essentially upon the recommendations of the President's Commission but does not include all of the Commission's recommendations. HR. 11447 essentially follows the philosophy of the Administration bill HR. 5924. S. 2597 (HR. 13951) of Senator Dirksen is a version of the bill drafted by the American Bar Association but without certain later refinements which were approved by the American Bar Association at its Honolulu meeting of last summer. The Dodd bill S. 1691 (HR. 7545) and the Yarborough-Tower bill S. 2164 (HR. 10006), in general, follow the first-to-invent philosophy of Dirksen S. 2597.

THE POSITION OF THE AMERICAN PATENT LAW ASSOCIATION

The position of the American Patent Law Association is expressed in the fifty-three Resolutions,² which were approved at its May 1967 meeting in Boston. Inasmuch as these Resolutions conform most completely, with one major exception, with the Dirksen bill S. 2597, the American Patent Law Association strongly urges the adoption of S. 2597. The important change that the American Patent Law Association urges in S. 2597 is the modification of Sec. 136(d)(3), having to do with interference practice. It is the American Patent Law Association's position that interferences between pending applications should be eliminated in order to expedite the issuance of a patent and that an interference should be provoked only by an applicant and with respect to an issued patent. This change also, we believe, would bring S. 2597 into line with the recently modified Administration position. The Association's suggested interference procedure is set forth in detail in this statement and is concerned with the problems of time and expense raised by the Administration.

THE RECENT ADMINISTRATION POSITION INDICATING POSSIBLE AREAS OF AGREEMENT

The American Patent Law Association is most encouraged by the present attitude of the Department of Commerce and the Patent Office in giving consideration to the position of the American Patent Law Association and in their willingness to reevaluate those problems which we believe are particularly serious.

Dr. John F. Kincaid, Assistant Secretary of Commerce, indicated several areas of compromise in his speech to our Association on January 24th and stated that he had personally requested the Commissioner of Patents to work with the organized patent bar, among others, "in an all out effort to reach agreement on the way best to modernize the patent system." Several modifications of the Administration position are set forth in his speech and in greater detail in a letter to Senator Eastland distributed January 24th at the direction of the Counsel for the Senate Subcommittee on Patents, Trademarks and Copyrights.

These suggested areas of compromise are receiving our serious consideration. We are, I believe, making progress toward an agreement between the Administration, members of the patent bar, business and scientific organizations on revisions to the patent laws which can be brought to your Committee for consideration.

The letter to Senator Eastland indicates a shift from the first-to-file rule of S. 1042 to a "modified first-to-file rule." It is far from clear as to what is meant by a "modified first-to-file rule." If the several references to a "modified first-to-

¹ See item 2 of the Appendix.

² Item 1 of the Appendix.

file rule" in the letter to Senator Eastland can be interpreted as meaning a first-to-invent system coupled with an absolute grace period, a 20-year patent period, and a simplified interference procedure limited to a one-year carry back, then real progress has been made in compromising the views of the Patent Bar and the Administration.

The Administration states at page 5 of the letter to Senator Eastland in discussing the grace period that "if a modified first-to-file rule with a time period provision as suggested above were to be adopted, it would not be necessary to eliminate the one-year absolute grace period of existing law. In fact, a one-year absolute grace period would be consistent with a modified first-to-file rule under which an inventor would be permitted to establish a priority date up to one year prior to his effective filing date for interference purposes."

Dr. Kincaid further indicated in his speech that the Department of Commerce was no longer pressing for universal prior art (S. 1042, Sec. 102(a)) defined by the President's Commission as including "information known to the public by means of disclosure in tangible form or by use or placing on sale, anywhere in the world, prior to the effective date of the application."

There also is some withdrawal from the requirement for the preliminary applications of S. 1042, as indicated by Recommendation VI of the letter to Senator Eastland. This, of course, would seem reasonable in view of the recommendation at page 5 of the letter with respect to the modified position to permit the use of an absolute grace period.

The Administration, at page 10 of the letter to Senator Eastland, supports the provision of S. 2597 (Sec. 116(b)) as to joinder of inventors and the correction of inventors (Sec. 111(e)).

The Administration also now supports the provision for amending a claim of priority as discussed in their Recommendation VI at page 11 of the letter.

The Recommendation VII, Publication, approaches agreement in that the concern of the Administration would be met by the American Patent Law Association's suggestion that the first filed interference application be published (issued).

With regard to Recommendation VIII, Continuing Applications, in view of the provision of S. 2597 (Sec. 154(a)), for a twenty year term for a patent, the Administration indicates at page 13 a common ground for agreement.

Recommendation IX, Standby Optional Deferred Examination, "the matter is not of major significance at this time in view of our anticipated work schedules." This removes a controversial issue.

With regard to Recommendation XI, Citation Period, it is submitted that the American Patent Law Association recommendation as to interference procedure would provide a common ground for the settlement of this issue.

Recommendation XVI, Reissue, indicates the acceptance of S. 2597, Secs. 251 (c) and 252(b), but with the latter amended "to provide for the continued practice of an invention without payment of royalties where substantial preparations for such practice were made."

Recommendation XVII, Interim Liability, at page 19, states "the interim liability provisions of S. 2597 merit careful study." This is progress.

Recommendation XVIII, Term of Patent, both S. 2597 and S. 1042 contain Sec. 154(b).

Recommendation XXIV, Civil Commissioners, states that the requirement for civil commissioners as provided in S. 1042 is no longer pressed. The same is true with regard to the statutory advisory council referred to in Recommendation XXVI.

Recommendation XXIX, Classification of Information Retrieval, points out an agreed area in that both S. 1042 and S. 2597 contain Sec. 12(a) relating to this matter.

With regard to Unobviousness, page 27 of the letter to Senator Eastland, the Administration states that "in the context of the priority system having a one-year absolute grace period which would be adopted by S. 2597, the one-year limitation on disposing of references would be desirable. Thus, if the Committee were to recommend the priority system embodied in S. 2597, the Department would favor the reference to one year of Sec. 103 of S. 2597."

Progress is being made in developing an agreed position for consideration by your Committee. There is indefiniteness, however, as to what the Administration may mean by "modified first-to-file rule." Also, except for the amendments proposed by Senator Long, there has been no implementation of these suggested revisions to any of the pending bills. We feel it is essential, therefore, to state in greater detail the Association's position and the basis for that position.

THE IMPORTANCE OF OUR PRESENT FIRST-TO-INVENT SYSTEM

The President's Commission and the Administration have reaffirmed that our present patent system plays an integral and critical part in our economic system. It is also recognized that it is unique in many ways from all other patent systems throughout the world. It is certain of these unique features which make it the critical factor it is in our economy.

It is the responsibility of every citizen to make certain that our patent system is improved and kept current with an expanding economy. However, it is just as important that all basic changes proposed be most carefully considered to determine whether they undermine the basic factors which have made our patent system vital.

The principal criticism that has been leveled at the present patent system is the length of time it takes from the filing of an application to issuance as a patent. As a result, it has been said, the public does not have the benefit of prompt disclosures to build upon and a manufacturer does not know what his problems may be with regard to infringement. The present interference procedure is particularly charged with this delay.

The President, in his letter of transmittal of the Patent Reform Act of 1957 to the House H.R. 5924 (S. 1042), outlines the threefold purpose which, if achieved, would meet most of the criticisms that have been leveled at the Patent Act of 1952.

"... Its purposes are threefold :

"(1) To raise the quality and reliability of U.S. patents.

"(2) To reduce the time and expense of obtaining and protecting a patent.

"(3) To speed public disclosure of scientific and technological information."

The first purpose involves quality and the other two involve essentially time.

The question is what improvement can be made without upsetting (1) the rewards which give incentive and stimulus to the inventor and (2) the provisions given to the public of a full and considered disclosure and thereby provide technology with another solid building block for progress.

Our position is that S. 1042 does not improve our patent system. Broadly speaking, it reforms it into a different patent system—one associated with a different economic system. In many European economies the patent does not play a vital or critical part in making the economy tick and it is possibly this failure that has brought on the widening technological gap about which Europeans have now become concerned.

CHANGES PROPOSED BY S. 1042 WHICH THE AMERICAN PATENT LAW ASSOCIATION OPPOSES

The most fundamental and far-reaching change proposed by S. 1042 is the adoption of a first to file system. Its supporters urge that it will eliminate the long delays inherent in priority contests, or interferences, and that it will make our system more compatible with those of the European countries. Because of the primary importance of this proposals our Association has given its lengthy and sympathetic consideration. The result is a firm position and sincere belief on the part of the Association that adoption of a first to file system would not be in the public interest.

It is submitted that the objective of quality and prompt disclosure can be obtained without this provision.

It is believed that the incentive provided by the twenty year term and the elimination of the declaration of interferences between pending applications combined with the expedited Patent Office procedure will end the delays in issuance of patents.

The Association's basic reason for opposing the adoption of a first to file system is that it would be unfair to the true first inventor and would fail to provide a sufficient incentive to invent. Our patent system was founded on the basis of recognizing and rewarding the true inventor, and we believe this is the most just and equitable principle to follow. This concept also has provided practical benefits not achieved in the first to file systems.

For example, an inventor under our present system may with reasonable safety disclose his ideas to others, seek financial and other help, make improvements, and build and test the invention—all before having to file his application. Thus U.S. patent applications, as is generally conceded, are valuable sources of information and adequately teach the best mode of practicing the invention. Under a first to file system the inventor must necessarily "race to the Patent

Office" as his rights may be cut off if he delays the preparation of his application until he completes the development of his invention. Any patent based upon a carefully prepared disclosure of a complete invention will be more valuable to the scientific community than one based upon a hastily written disclosure of an incomplete invention.

Turing to the advantage of adapting our system to those of the European countries, APLA submits that the distant dream of a universal patent does not justify this country's adoption of an unfair system with inherent practical disadvantages. Moreover, the limited international cooperation now under consideration clearly would not require that all participants have either a first to file or a first to invent system. Accordingly, APLA urges retention of the principle that the first to invent should be entitled to the patent.

The proposed elimination of the "grace period" by S. 1042 within which an inventor may perfect, further develop and market test his invention before being required to file his patent application is closely related to the first to file problem. The Association believes that the present one year period is a reasonable compromise between the goal of prompt filing of patent applications and the equally desirable goal of having applications disclose the best possible mode of practicing the invention. Section 102(a) of S. 1042, however, would force inventors to file applications prematurely, on ideas which had not been adequately considered or tested, to avoid the risk that an intervening public use or publication would cut off the right to a patent. This would flood the Patent Office with disclosures which not only would fail to teach one skilled in the art anything of value, but which by their sheer quantity would tend to obscure and mask the valuable disclosures.

Another change proposed by S. 1042 which was opposed by the Association on the ground that the present law better serves the public interest is the provision of Section 191 for standby statutory authority for the Secretary of Commerce to institute a system of deferred examination. The Administration is not presently pressing for this provision.

Section 123 of S. 1042, providing for publication of applications, is opposed in its present form, but if modified as outlined below the proposal would be supported. The Association recommends that applications be kept secret until their allowance and that an applicant be allowed a reasonable time after allowance of his application to decide whether to abandon it in order to avoid publication. If abandoned the application would neither be published nor issued as a patent. Areas of agreement have developed.¹

The Association strongly opposes the provision of Section 102 of S. 1042 which would include foreign knowledge, use and sale as prior art. The Administration has indicated a withdrawal from this provision.

Among other changes opposed by the Association is the proposed elimination of computer programs from the area of patentable subject matter. The Association believes that this subject involves such a new area of technology that patentability in this field should be determined by the courts on a case-by-case basis. It is still too early to predict the nature and effect of technological developments in this field and deal with them by rigid statutory language such as proposed by Section 106.

For a similar reason the Association opposes the provisions of Section 294 of S. 1042 which would create a statutory estoppel against the patentee arising out of an adjudication limiting the scope of any patent claim or holding it to be invalid. The doctrine of collateral estoppel, now being applied to curb the practice of asserting infringement of claims of a patent previously held to be invalid, has been developing on a case-by-case basis. The Association believes that the proposed statutory provision would be unfair in some cases, and that its enactment would halt the promising development of the collateral estoppel doctrine and its application to patent litigation.

The Association disapproves proposed Section 137 and favors the principle of giving the applicant the benefit of doubts concerning nonobviousness of the claimed invention. The Association was influenced in this respect by the recent Supreme Court decision in *Graham v. John Deere Company*, 383 U.S. 1 (1966), in which the Court stated:

"Such secondary considerations as commercial success, long felt but unsolved needs, failure to others, etc. might be utilized to give life to the

¹ See Recommendation VII and APLA recommendation of publication by issuance of first filed interfering patent.

circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy."

Because the considerations listed by the Court cannot ordinarily be determined before prosecution of an application before the Patent Office has been terminated, it was felt that unless the benefit of a reasonable doubt respecting nonobviousness be given to the applicant, he would never have an opportunity to demonstrate the patentability of his invention by these indicia.

The Association further opposes the provisions of Section 253(c) of S. 1042 in favor of elimination of double patenting as a basis for refusing issuance of a patent or asserting its invalidity in situations where the patents will expire on the same date and the right to sue for infringement of both patents is maintained in the same legal entity. It is the Association's belief that any evils inherent in double patenting are eliminated if the patents, as a result of terminal disclaimer or otherwise, expire on the same date and are owned by the same person, because in such circumstances the patents in effect are but a single patent contained in two documents.

While the Association supports the recommendation of the President's Commission that the Patent Office be supported adequately to insure first-class staffing, housing and equipment, and that the Patent Office should not be required to be self-sustaining, the Association opposes the portion of Commission Recommendation XXVII incorporated in Section 41(a) of S. 1042 which authorizes the Commissioner of Patents to fix Patent Office fees without express Congressional approval of such fees.

Another problem which the Association feels can be solved in a better way than that proposed in S. 1042 is the elimination of the dual routes of review of Patent Office decisions by providing for review only by the Court of Customs and Patent Appeals, with that Court being authorized to receive additional evidence. After much study of this question the Association concluded that the Court of Appeals for the District of Columbia should not review decisions of the Court of Customs and Patent Appeals, as proposed in Section 147 of S. 1042. The alleged broader experience of the D.C. Court of Appeals resulting from its appellate jurisdiction in patent infringement matters is open to serious question. In the five year period from 1961 through 1965 that Court decided only three infringement cases, two of which were simply affirmed by brief per curiam opinions. Only thirty-four other patent, trademark and copyright opinions of the Court were reported in the United States Patent Quarterly for the same five year period, showing that each of its nine judges devotes only a minor fraction of his busy schedule to patent matters. By way of contrast, the Court of Customs and Patent Appeals wrote full opinions on the merits of 687 Patent Office appeals during that time. The Association believes that the expertise of the C.C.P.A. in handling appeals from the Patent Office is a valuable and necessary part of a properly functioning patent system.

The Association is opposed to the elimination of priority contests by the substitution of a first to file system. It is submitted that the interference procedure to determine priority is not and need not be the cause for delay which would justify a first to file system.

The interference problem is complex but it is of extreme importance to those involved in a priority contest. However, the effect of interference procedures in the patent system must be kept in perspective. At the present time, as a result of practices initiated by the Patent Office, the number of applications which become involved in interference is only something of the order of one-half of one percent of the applications filed. Over half of the interferences are suggested or formulated by the Patent Office between pending applications, according to figures developed from a sample survey made 1950-1959 and reported in the *Journal of Patent Office Society*.² These figures would seem to indicate that if interferences between pending applications were eliminated, the number of interferences would be only a tiny percentage of pending applications and would not reasonably be considered a factor of delay in the over-all patent system.

The American Patent Law Association, after consideration extending over several years and more recently intensified as the result of the consideration of S. 1042 and S. 2597, suggests an interference procedure which it is believed will materially refuse the delays of prosecution and publication without penalizing the first and true inventor. This suggested interference procedure is as follows:

² JPOS Vol. 45, 1963, pp. 503-591 inclusive, at page 550. Item 3 of the Appendix hereto.

Where two or more pending patent applications claim in substance the same patentable invention the Patent Office shall issue a patent on the application having the earliest effective filing date and then shall promptly reject any claims in later-filed applications which are unpatentable over the issued patent. The applicant of any application so rejected may overcome the rejection by successfully contesting priority of invention in a proceeding comparable to the present practice in interferences between patents and applications. Where the Patent Office inadvertently issues a patent on an application filed after the effective filing date of the earliest-filed application on substantially the same patentable invention, the earliest-filed application may also be issued as at present and the issue of priority as between the resulting interfering patents may be determined as it is under existing law, that is, (a) by the filing by one of the patentees of an application for reissue and by provoking by that patentee of an interference in the Patent Office, or (b) by the instituting by one of the patentees of an action in a Federal court under 35 U.S.C. 291.

Since our Association is opposed to priority contests between pending applications, we also recommend against any provision such as that of section 136(d) (3) of S. 2597 for basing an opposition proceeding on the ground that the inventor of the opposed application was not the first inventor.

The Association approves the principle that a patent should expire twenty years after the filing date of the earliest filed application from which it derives. However, there is a possibility that an interferant would, under the twenty-year rule, obtain less than the present seventeen-year monopoly. As to what should be done, if anything, about this possible inequity, our Association believes that its significance is largely conjectural at present, and that to depart now from the principles set forth above in order to deal with it may result in a greater inequity elsewhere. But we also believe that if experience under the new law shows that it results in injustice to interferants, the law should be amended to provide relief.

CHANGES PROPOSED BY S. 1042 WHICH ARE SUPPORTED BY APLA¹

Among the changes proposed by S. 1042 which were approved by the Association is Section 154(b), providing that patents shall expire 20 years after the filing date of the application. This change in measuring the term of a patent should be an incentive for diligent prosecution and should discourage any intentional delay by the applicant in prosecuting his patent application, as each delay automatically would shorten the life of his patent.

A related change supported by APLA is the provision of Section 154(c) extending the term of a patent in case of delay caused by a secrecy order. The need for and fairness of this provision is self evident.

Another proposal of S. 1042 which was endorsed by the Association is the provision of Section 111 permitting the owner of an invention, whether or not he be the inventor, to file the patent application, provided that the inventor be named therein.

Also endorsed was the principal of Section 116 authorizing less rigid requirements for joining co-inventors in a patent application and liberalizing filing procedures in such cases.

Another provision of S. 1042 which is approved in principle by the Association is the proposal of Section 136 to allow interested parties to call to the attention of the Patent Office any prior patents or other public disclosures which may have been overlooked in allowing the claims of a published application. This provision is intended to aid the Patent Office by supplementing its search of the prior art which, of necessity, is limited to the patents and publications in the Patent Office files.

APLA also approves in principle the provisions of Section 273 of S. 1042 by which the owner of a published patent application may collect damages from an infringer who has received actual notice of infringement of a valid allowed claim of the application, but the Association disapproves the second sentence of paragraph (c) of the Section as unnecessarily limiting the equitable remedies available in case of continuation of infringing use after issuance of the patent.

The Association notes with approval, moreover, that S. 1042 retains provisions for plant patents and recommends the extension of the principles of the Patent System to all of the agricultural arts.

¹ Minor and non-controversial changes proposed by S. 1042 and endorsed by APLA, such as the provision of Section 12(a) respecting the handling, classification, storage and retrieval of patents and related literature, are not included in this statement but are covered by the Resolutions which are included in Item 1 of the Appendix hereto.

COMMISSION RECOMMENDATION FAVORED BY APLA BUT EITHER OMITTED FROM OR
MATERIALLY ALTERED IN S. 1042

This Association favors several changes recommended by the President's Commission on the patent system which either were omitted from S. 1042 or so changed as to render them ineffective.

The most important of these is Recommendation XXII providing that the "Rule of Reason" shall constitute the guideline for determining patent misuse. The doctrine of patent misuse is plagued by so many conflicting decisions that patent owners and businessmen are unable to determine how they can safely and properly deal with patent rights. Adoption of the general test of reasonableness with respect to patent contracts having a direct relation to the invention covered by the patent would be an important step toward clarification of the doctrine. Accordingly, the Association recommends that legislation implementing Recommendation XXII be enacted.

The Association also notes that Recommendation XXI of the President's Commission, to the effect that importation of a product made abroad by a process patented in the United States should constitute an act of infringement, was subjected to a crippling amendment before its inclusion as paragraph (b) of Section 271 of S. 1042. This Association supports this recommendation as originally presented by the President's Commission.² It feels that the exception provided in Section 271(b) of S. 1042 would invite a potential infringing user of a new process to seek out a country in which patent protection was available but either had not been obtained or was ineffectual, and then move his manufacturing facilities from the United States to that country for the purpose of using the new process to make products for the American market. Such an "infringer", not bearing any portion of the research expense leading to the development of the process, and having available cheaper foreign labor, would have a substantial advantage over American manufacturers who were using the process under a license from the inventor. The Association feels that such an advantage would be unfair, and supports the President's Commission recommendation without the crippling exception included in Section 271(b) of S. 1042.

We must not lose sight of the fact that as a result of the fine efforts of Commissioner Brenner, in developing sound business and housekeeping procedures within the Patent Office and with the benefit of additional funds and manpower which the Congress has provided, the prosecution of applications into patents has been and can be materially expedited. The Administration has recognized this in its modified position as to the proposed publication of application disclosures.

SUMMARY AND CONCLUSIONS

The Association endorses the objectives set forth by the President's Commission and has considered each proposed change in the patent system carefully in the light of these objectives. However, the Association does not consider S. 1042 adapted to solve the problems recognized and achieve the objectives of the Commission. Therefore, the Association recommends that it not be enacted.

The Association believes the S. 2597 is the best bill now pending to achieve the objectives of the President's Commission. Also it conforms most completely to the position of the Association as stated in the Resolutions.

[Appendix 1]

APLA RESOLUTIONS ON PATENT REVISION

A Committee of the Board of Managers has reviewed and edited all the Resolutions adopted on behalf of the Association at the meeting held in Boston in May. They are reproduced here in the form in which they have been sent to Subcommittee No. 3 of the House Committee on the Judiciary.

INTERFERENCE REFORM

Resolved, that the Association recommends elimination of the declaration by the Patent Office of interferences between pending applications, in favor of permitting the issuance of patents with another applicant having the right to provoke an interference therewith, even though he cannot specifically copy the patent claims.

² Report of the President's Commission on the Patent System, Pages 35, 36.

FIRST-TO-FILE SYSTEM

Resolved, that the Association opposes in principle any change in the law which would have the effect of awarding the patent only to the applicant who was the first to file his applications; and further Resolved, that the Association is opposed to Section 102(b) of S. 1042 and H.R. 5924.

Resolved, that should a first-to-file system be adopted, contrary to the position of the Association, then the Association recommends that language adopting the prior user principles of Senator Long of Missouri's proposed Section 274 introduced as an amendment to S. 1042 be included in the patent law of the United States.

Resolved, that should a first-to-file system be adopted, contrary to the position of the Association, the Association believes that such system must provide an effective preliminary application system.

GRACE PERIOD

Resolved, that the Association is opposed to eliminating the present one-year grace period within which application may be made for a patent after the public use or sale of the invention or the patenting or publication of the invention; and further Resolved, that the Association is opposed to Section 102(a) of S. 1042 and H.R. 5924.

Resolved, that should the present one-year grace period be eliminated, contrary to the position of the Association, the Association recommends that language adopting the personal grace period principles of Senator Long of Missouri's proposed Section 105(a) introduced as an amendment to S. 1042 be included in the patent laws of the United States.

Resolved, that should the present one-year grace period be abolished, contrary to the position of the Association, the Association approves the principle that prior art should not include, as to the inventor concerned, disclosures of an invention resulting from a display in an international exhibition or an unauthorized public divulcation of information derived from the inventor.

PRIOR ART

Resolved, that Association is opposed to any change in the patent laws of the United States which would include as prior art foreign knowledge, use, or sale except to the extent contained in a publication; and further resolved, that the Association is opposed to Section 102(a) of S. 1042 and H.R. 5924.

Resolved, that if the patent laws of the United States are changed to include foreign knowledge, use, or sale as prior art, contrary to the position of the Association, the Association recommends that such foreign knowledge, use, or sale be required to be proved beyond a reasonable doubt by evidence acceptable under the Federal Rules of Civil Procedure.

APPLICATION PUBLICATION AND ART CITATION

Resolved, that the Association approves in principle consideration by the Patent Office of patents and publications cited by the public within six months after publication of the application, provided that the applicant has an opportunity to rebut any determination of unpatentability and also has the opportunity to amend the scope of any claims, and further provided that the citing or failure to cite by a member of the public shall have no effect in any *inter partes* proceeding involving him; but further resolved, that the Association disapproves Section 136 of S. 1042 and H.R. 5924 as unduly broad and not containing necessary protection for the applicant and the public.

Resolved, that the Association disapproves in principle the publication of pending applications before the allowance of the claims thereof without authorization of the applicant or after the allowance of the claims thereof without first giving the applicant a reasonable time within which to elect whether or not to abandon the application thereby preventing publication.

Resolved, that in the event applications are published prior to their issuance, the Association approves in principle the procedure by which the owner of the application may collect damages from an "infringer" who has received actual notice from the application owner of infringement of a valid claim which has been allowed by the Patent Office; and further resolved, that the Association

disapproves the second sentence of Section 273(c) of S. 1042 and H.R. 5924 as unnecessarily restricting the remedies available to a patentee for infringement of his patent.

DEFERRED EXAMINATION

Resolved, that the Association opposes adoption of deferred examination in this country, at least until such time as the effect of such systems being tried abroad is demonstrated; and further resolved, that the Association is opposed to Chapter 18 of S. 1042 and H.R. 5924.

Resolved, that the Association opposes in principle the granting of standby statutory authority to any agency to institute a deferred examination procedure at a later date; and further resolved that the Association is opposed to Section 191 of S. 1042 and H.R. 5924.

MEASUREMENT OF PATENT TERM

Resolved, that the Association approves in principle legislation providing that the patent shall expire 20 years after the filing of the earliest United States application disclosing the invention.

Resolved, that provided patents expire 20 years from their effective filing dates, the Association approves the principle that an applicant who has continuously in the Patent Office disclosed an invention in a series of two or more applications shall be entitled to the benefit of the filing date of the earliest filed application in such series.

RESOLUTION OF DOUBTS RE NON-OBVIOUSNESS

Resolved, that the Association favors in principle the practice of the Patent Office of giving to the applicant the benefit of doubts concerning non-obviousness of the claimed invention; and further resolved, that the Association disapproves the statutory expression of the concept of Section 137 of S. 1042 and H.R. 5924.

FILING BY OWNER AND JOINDER OF INVENTORS

Resolved, that the Association favors in principle permitting the owner of an invention, whether or not he be the inventor, to file a patent application covering that invention, provided the inventor or inventors be named in the application.

Resolved, that the Association approves the provisions of Section 256 of S. 1042 and H.R. 5924 and recommends that the language of that Section be adopted in place of the present provisions of Section 256 of Title 35, United States Code.

DOUBLE PATENTING

Resolved, that the Association favors elimination of "double patenting" as a basis for refusing issuance of a patent and as a basis for asserting invalidity of a patent in situations where the patents will expire on the same date as a result of issuing on the same date or as a result of a terminal disclaimer, provided that the right to sue for infringement of said patents is maintained in the same legal entity.

REISSUE OF PATENTS

Resolved, that the Association opposes an absolute prohibition of reissued patents with one or more claims broader than those in the original patent; and further resolved, that the Association is opposed to Section 251(c) of S. 1042 and H.R. 5924.

PATENTABLE SUBJECT MATTER

Resolved, that the Association favors, where practicable, the application of the principles of the Patent System to all the agricultural arts (including all plants, sexual seed breeding, microorganisms, and animal husbandry).

Resolved, that the Association favors the addition to the patent laws of the United States of the following definition of "useful":

"The term 'useful' shall include, but not be limited to, utility in agriculture, commerce, industry or research."

Resolved, that the Association is opposed to the elimination of computer programs from the area of patentable subject matter; and further resolved, that the Association is opposed to Section 106 of S. 1042 and H.R. 5924.

PATENT OFFICE FEES AND QUALITY CONTROL

Resolved, that the Association approves the principle that the Patent Office be supported adequately to insure first class staffing, housing and equipment; that the Patent Office should not be self-sustaining; and that any fees charged should be reasonably apportioned in accordance with the cost of providing the particular service.

Resolved, that the Association opposes general authorization for administrative establishment of Patent Office fees without express Congressional approval of such fees.

Resolved, that the Association opposes a statutory Advisory Council to the Commissioner of Patents as proposed by the President's Commission; and further resolved, that the Association opposes Section 15 of S. 1042 and H.R. 5924.

Resolved, that the Association is opposed in principle to the publication of a rating of the quality of issued patents; and further resolved, that the Association is opposed to Recommendation XII of the President's Commission.

APPEALS FROM THE PATENT OFFICE

Resolved, that the Association recommends that Patent Office decisions be reviewed only by the Court of Customs and Patent Appeals and that that Court be authorized to receive additional evidence.

Resolved, that if the present right to a de novo review of Patent Office decisions by the District Court be retained, contrary to the position of the Association, then the Association favors legislation providing that appeal of District Court decisions in such cases be to the Court of Customs and Patent Appeals.

Resolved, that the Association is opposed in principle to statutory enactment which would make decisions of the Court of Customs and Patent Appeals reviewable by the U.S. Court of Appeals for the District of Columbia; and further resolved, that the Association is opposed to Section 147 of S. 1042 and H.R. 5924.

PATENT INFRINGEMENT AND LITIGATION

Resolved, that the Association favors in principle legislation making the importation into the United States of a product made abroad by a process patented in the United States an act of infringement, regardless of whether patent protection on the process was available in the foreign country where the product was made.

Resolved, that the Association disapproves legislation which would create an estoppel against the patentee, and those in privity with him, arising out of an adjudication limiting the scope of any patent claim or holding it invalid; and further resolved, that the Association is opposed to Section 294 of S. 1042 and H.R. 5924.

Resolved, that the Association opposes in principle the creation of the Office of Civil Commissioner in patent cases, and the Association specifically opposes Section 757 of S. 1042 and H.R. 5924.

PATENT LICENSING AND MISUSE

Resolved, that the Association approves legislation by which the licensable nature of patent rights should be clarified by specifically stating in the patent statute that applications for patents, patents, or any interests therein may be licensed in the whole, or in any specified part, of the field of use to which the subject matter of the claims of the patent are directly applicable; and further resolved, that a patent owner shall not be deemed guilty of a patent misuse merely because he agreed to a contractual provision or imposed a condition on a licensee, which has (a) a direct relation to the disclosure and claims of the patent, and (b) the performance of which is reasonable under the circumstances to secure to the patent owner the full benefit of his invention and patent grant; and further resolved, that the Association approves of legislation by which it is made clear that the "rule of reason" shall constitute the guideline for determining patent misuse.

GENERAL RECOMMENDATIONS

Resolved, that the Association recommends that the Congress give careful consideration after extensive hearings thereon to the capabilities of modern information retrieval and communication technologies in evolving a self-consistent soundly conceived patent act.

Resolved, that the Association approves in principle mutual efforts among foreign countries and the United States to improve the international operability of patent systems throughout the world; and further resolved, that the Association disapproves in principle changes in the United States patent statutes made to increase uniformity with foreign patent systems unless it be shown that such changes will favorably affect the domestic operation and effectiveness of the United States Patent System.

Resolved, that the Association does not consider the Patent Reform Act of 1967, now pending as S. 1042 and H.R. 5924 before the Congress, suitable for enactment in its present form or well adapted to solve the problems recognized, and achieve the purposes and objectives state, by the President in his letter transmitting to Congress the text of that proposed Act and, therefore, recommends that it be not enacted into law.

[Appendix 2]

SECTION-BY-SECTION ANALYSIS
OF
PATENT REFORM ACT OF 1967

(Prepared and Published by the American Patent Law Association in Cooperation With the Bureau of National Affairs, Inc., Publisher of the United States Patent Quarterly)

Existing Law	President's Commission Recommendation	Patent Reform Bill H.R. 5924 & S. 1042	ABA Bill (with amendments)	H.R. 1147	H.R. 7454 & S. 1691	H.R. 10905 & S. 2104	APLA
(a) Patents are issued to the inventor or his assignee, and where there are any intervening claims, the same invention is claimed. The issue of priority is determined by the date the patent is issued, not the date the application is filed. (1) (b) (i) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kk) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne) (nf) (ng) (nh) (ni) (nj) (nk) (nl) (nm) (nn) (no) (np) (nq) (nr) (ns) (nt) (nu) (nv) (nw) (nx) (ny) (nz) (oa) (ob) (oc) (od) (oe) (of) (og) (oh) (oi) (oj) (ok) (ol) (om) (on) (oo) (op) (oq) (or) (os) (ot) (ou) (ov) (ow) (ox) (oy) (oz) (pa) (pb) (pc) (pd) (pe) (pf) (pg) (ph) (pi) (pj) (pk) (pl) (pm) (pn) (po) (pp) (pq) (pr) (ps) (pt) (pu) (pv) (pw) (px) (py) (pz) (qa) (qb) (qc) (qd) (qe) (qf) (qg) (qh) (qi) (qj) (qk) (ql) (qm) (qn) (qo) (qp) (qq) (qr) (qs) (qt) (qu) (qv) (qw) (qx) (qy) (qz) (ra) (rb) (rc) (rd) (re) (rf) (rg) (rh) (ri) (rj) (rk) (rl) (rm) (rn) (ro) (rp) (rq) (rr) (rs) (rt) (ru) (rv) (rw) (rx) (ry) (rz) (sa) (sb) (sc) (sd) (se) (sf) (sg) (sh) (si) (sj) (sk) (sl) (sm) (sn) (so) (sp) (sq) (sr) (ss) (st) (su) (sv) (sw) (sx) (sy) (sz) (ta) (tb) (tc) (td) (te) (tf) (tg) (th) (ti) (tj) (tk) (tl) (tm) (tn) (to) (tp) (tq) (tr) (ts) (tt) (tu) (tv) (tw) (tx) (ty) (tz) (ua) (ub) (uc) (ud) (ue) (uf) (ug) (uh) (ui) (uj) (uk) (ul) (um) (un) (uo) (up) (uq) (ur) (us) (ut) (uu) (uv) (uw) (ux) (uy) (uz) (va) (vb) (vc) (vd) (ve) (vf) (vg) (vh) (vi) (vj) (vk) (vl) (vm) (vn) (vo) (vp) (vq) (vr) (vs) (vt) (vu) (vv) (vw) (vx) (vy) (vz) (wa) (wb) (wc) (wd) (we) (wf) (wg) (wh) (wi) (wj) (wk) (wl) (wm) (wn) (wo) (wp) (wq) (wr) (ws) (wt) (wu) (wv) (ww) (wx) (wy) (wz) (xa) (xb) (xc) (xd) (xe) (xf) (xg) (xh) (xi) (xj) (xk) (xl) (xm) (xn) (xo) (xp) (xq) (xr) (xs) (xt) (xu) (xv) (xw) (xx) (xy) (xz) (ya) (yb) (yc) (yd) (ye) (yf) (yg) (yh) (yi) (yj) (yk) (yl) (ym) (yn) (yo) (yp) (yq) (yr) (ys) (yt) (yu) (yv) (yw) (yx) (yy) (yz) (za) (zb) (zc) (zd) (ze) (zf) (zg) (zh) (zi) (zj) (zk) (zl) (zm) (zn) (zo) (zp) (zq) (zr) (zs) (zt) (zu) (zv) (zw) (zx) (zy) (zz)	(a) A patent shall be issued to the inventor or his assignee, and where there are any intervening claims, the same invention is claimed. The issue of priority is determined by the date the patent is issued, not the date the application is filed. (1) (b) (i) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kk) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne) (nf) (ng) (nh) (ni) (nj) (nk) (nl) (nm) (nn) (no) (np) (nq) (nr) (ns) (nt) (nu) (nv) (nw) (nx) (ny) (nz) (oa) (ob) (oc) (od) (oe) (of) (og) (oh) (oi) (oj) (ok) (ol) (om) (on) (oo) (op) (oq) (or) (os) (ot) (ou) (ov) (ow) (ox) (oy) (oz) (pa) (pb) (pc) (pd) (pe) (pf) (pg) (ph) (pi) (pj) (pk) (pl) (pm) (pn) (po) (pp) (pq) (pr) (ps) (pt) (pu) (pv) (pw) (px) (py) (pz) (qa) (qb) (qc) (qd) (qe) (qf) (qg) (qh) (qi) (qj) (qk) (ql) (qm) (qn) (qo) (qp) (qq) (qr) (qs) (qt) (qu) (qv) (qw) (qx) (qy) (qz) (ra) (rb) (rc) (rd) (re) (rf) (rg) (rh) (ri) (rj) (rk) (rl) (rm) (rn) (ro) (rp) (rq) (rr) (rs) (rt) (ru) (rv) (rw) (rx) (ry) (rz) (sa) (sb) (sc) (sd) (se) (sf) (sg) (sh) (si) (sj) (sk) (sl) (sm) (sn) (so) (sp) (sq) (sr) (ss) (st) (su) (sv) (sw) (sx) (sy) (sz) (ta) (tb) (tc) (td) (te) (tf) (tg) (th) (ti) (tj) (tk) (tl) (tm) (tn) (to) (tp) (tq) (tr) (ts) (tt) (tu) (tv) (tw) (tx) (ty) (tz) (ua) (ub) (uc) (ud) (ue) (uf) (ug) (uh) (ui) (uj) (uk) (ul) (um) (un) (uo) (up) (uq) (ur) (us) (ut) (uu) (uv) (uw) (ux) (uy) (uz) (va) (vb) (vc) (vd) (ve) (vf) (vg) (vh) (vi) (vj) (vk) (vl) (vm) (vn) (vo) (vp) (vq) (vr) (vs) (vt) (vu) (vv) (vw) (vx) (vy) (vz) (wa) (wb) (wc) (wd) (we) (wf) (wg) (wh) (wi) (wj) (wk) (wl) (wm) (wn) (wo) (wp) (wq) (wr) (ws) (wt) (wu) (wv) (ww) (wx) (wy) (wz) (xa) (xb) (xc) (xd) (xe) (xf) (xg) (xh) (xi) (xj) (xk) (xl) (xm) (xn) (xo) (xp) (xq) (xr) (xs) (xt) (xu) (xv) (xw) (xx) (xy) (xz) (ya) (yb) (yc) (yd) (ye) (yf) (yg) (yh) (yi) (yj) (yk) (yl) (ym) (yn) (yo) (yp) (yq) (yr) (ys) (yt) (yu) (yv) (yw) (yx) (yy) (yz) (za) (zb) (zc) (zd) (ze) (zf) (zg) (zh) (zi) (zj) (zk) (zl) (zm) (zn) (zo) (zp) (zq) (zr) (zs) (zt) (zu) (zv) (zw) (zx) (zy) (zz)	(a) Retains existing substance of law on priority of invention but generally a patent would be issued to the first to file with intervening claims to the same invention. Where there are competing claims to the same invention, the issue of priority is determined by the date the patent is issued, not the date the application is filed. (1) (b) (i) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kk) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne) (nf) (ng) (nh) (ni) (nj) (nk) (nl) (nm) (nn) (no) (np) (nq) (nr) (ns) (nt) (nu) (nv) (nw) (nx) (ny) (nz) (oa) (ob) (oc) (od) (oe) (of) (og) (oh) (oi) (oj) (ok) (ol) (om) (on) (oo) (op) (oq) (or) (os) (ot) (ou) (ov) (ow) (ox) (oy) (oz) (pa) (pb) (pc) (pd) (pe) (pf) (pg) (ph) (pi) (pj) (pk) (pl) (pm) (pn) (po) (pp) (pq) (pr) (ps) (pt) (pu) (pv) (pw) (px) (py) (pz) (qa) (qb) (qc) (qd) (qe) (qf) (qg) (qh) (qi) (qj) (qk) (ql) (qm) (qn) (qo) (qp) (qq) (qr) (qs) (qt) (qu) (qv) (qw) (qx) (qy) (qz) (ra) (rb) (rc) (rd) (re) (rf) (rg) (rh) (ri) (rj) (rk) (rl) (rm) (rn) (ro) (rp) (rq) (rr) (rs) (rt) (ru) (rv) (rw) (rx) (ry) (rz) (sa) (sb) (sc) (sd) (se) (sf) (sg) (sh) (si) (sj) (sk) (sl) (sm) (sn) (so) (sp) (sq) (sr) (ss) (st) (su) (sv) (sw) (sx) (sy) (sz) (ta) (tb) (tc) (td) (te) (tf) (tg) (th) (ti) (tj) (tk) (tl) (tm) (tn) (to) (tp) (tq) (tr) (ts) (tt) (tu) (tv) (tw) (tx) (ty) (tz) (ua) (ub) (uc) (ud) (ue) (uf) (ug) (uh) (ui) (uj) (uk) (ul) (um) (un) (uo) (up) (uq) (ur) (us) (ut) (uu) (uv) (uw) (ux) (uy) (uz) (va) (vb) (vc) (vd) (ve) (vf) (vg) (vh) (vi) (vj) (vk) (vl) (vm) (vn) (vo) (vp) (vq) (vr) (vs) (vt) (vu) (vv) (vw) (vx) (vy) (vz) (wa) (wb) (wc) (wd) (we) (wf) (wg) (wh) (wi) (wj) (wk) (wl) (wm) (wn) (wo) (wp) (wq) (wr) (ws) (wt) (wu) (wv) (ww) (wx) (wy) (wz) (xa) (xb) (xc) (xd) (xe) (xf) (xg) (xh) (xi) (xj) (xk) (xl) (xm) (xn) (xo) (xp) (xq) (xr) (xs) (xt) (xu) (xv) (xw) (xx) (xy) (xz) (ya) (yb) (yc) (yd) (ye) (yf) (yg) (yh) (yi) (yj) (yk) (yl) (ym) (yn) (yo) (yp) (yq) (yr) (ys) (yt) (yu) (yv) (yw) (yx) (yy) (yz) (za) (zb) (zc) (zd) (ze) (zf) (zg) (zh) (zi) (zj) (zk) (zl) (zm) (zn) (zo) (zp) (zq) (zr) (zs) (zt) (zu) (zv) (zw) (zx) (zy) (zz)	(a) Retains existing substance of law on priority of invention but generally a patent would be issued to the first to file with intervening claims to the same invention. Where there are competing claims to the same invention, the issue of priority is determined by the date the patent is issued, not the date the application is filed. (1) (b) (i) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kk) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne) (nf) (ng) (nh) (ni) (nj) (nk) (nl) (nm) (nn) (no) (np) (nq) (nr) (ns) (nt) (nu) (nv) (nw) (nx) (ny) (nz) (oa) (ob) (oc) (od) (oe) (of) (og) (oh) (oi) (oj) (ok) (ol) (om) (on) (oo) (op) (oq) (or) (os) (ot) (ou) (ov) (ow) (ox) (oy) (oz) (pa) (pb) (pc) (pd) (pe) (pf) (pg) (ph) (pi) (pj) (pk) (pl) (pm) (pn) (po) (pp) (pq) (pr) (ps) (pt) (pu) (pv) (pw) (px) (py) (pz) (qa) (qb) (qc) (qd) (qe) (qf) (qg) (qh) (qi) (qj) (qk) (ql) (qm) (qn) (qo) (qp) (qq) (qr) (qs) (qt) (qu) (qv) (qw) (qx) (qy) (qz) (ra) (rb) (rc) (rd) (re) (rf) (rg) (rh) (ri) (rj) (rk) (rl) (rm) (rn) (ro) (rp) (rq) (rr) (rs) (rt) (ru) (rv) (rw) (rx) (ry) (rz) (sa) (sb) (sc) (sd) (se) (sf) (sg) (sh) (si) (sj) (sk) (sl) (sm) (sn) (so) (sp) (sq) (sr) (ss) (st) (su) (sv) (sw) (sx) (sy) (sz) (ta) (tb) (tc) (td) (te) (tf) (tg) (th) (ti) (tj) (tk) (tl) (tm) (tn) (to) (tp) (tq) (tr) (ts) (tt) (tu) (tv) (tw) (tx) (ty) (tz) (ua) (ub) (uc) (ud) (ue) (uf) (ug) (uh) (ui) (uj) (uk) (ul) (um) (un) (uo) (up) (uq) (ur) (us) (ut) (uu) (uv) (uw) (ux) (uy) (uz) (va) (vb) (vc) (vd) (ve) (vf) (vg) (vh) (vi) (vj) (vk) (vl) (vm) (vn) (vo) (vp) (vq) (vr) (vs) (vt) (vu) (vv) (vw) (vx) (vy) (vz) (wa) (wb) (wc) (wd) (we) (wf) (wg) (wh) (wi) (wj) (wk) (wl) (wm) (wn) (wo) (wp) (wq) (wr) (ws) (wt) (wu) (wv) (ww) (wx) (wy) (wz) (xa) (xb) (xc) (xd) (xe) (xf) (xg) (xh) (xi) (xj) (xk) (xl) (xm) (xn) (xo) (xp) (xq) (xr) (xs) (xt) (xu) (xv) (xw) (xx) (xy) (xz) (ya) (yb) (yc) (yd) (ye) (yf) (yg) (yh) (yi) (yj) (yk) (yl) (ym) (yn) (yo) (yp) (yq) (yr) (ys) (yt) (yu) (yv) (yw) (yx) (yy) (yz) (za) (zb) (zc) (zd) (ze) (zf) (zg) (zh) (zi) (zj) (zk) (zl) (zm) (zn) (zo) (zp) (zq) (zr) (zs) (zt) (zu) (zv) (zw) (zx) (zy) (zz)	(a) Retains existing substance of law on priority of invention but generally a patent would be issued to the first to file with intervening claims to the same invention. Where there are competing claims to the same invention, the issue of priority is determined by the date the patent is issued, not the date the application is filed. (1) (b) (i) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kk) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne) (nf) (ng) (nh) (ni) (nj) (nk) (nl) (nm) (nn) (no) (np) (nq) (nr) (ns) (nt) (nu) (nv) (nw) (nx) (ny) (nz) (oa) (ob) (oc) (od) (oe) (of) (og) (oh) (oi) (oj) (ok) (ol) (om) (on) (oo) (op) (oq) (or) (os) (ot) (ou) (ov) (ow) (ox) (oy) (oz) (pa) (pb) (pc) (pd) (pe) (pf) (pg) (ph) (pi) (pj) (pk) (pl) (pm) (pn) (po) (pp) (pq) (pr) (ps) (pt) (pu) (pv) (pw) (px) (py) (pz) (qa) (qb) (qc) (qd) (qe) (qf) (qg) (qh) (qi) (qj) (qk) (ql) (qm) (qn) (qo) (qp) (qq) (qr) (qs) (qt) (qu) (qv) (qw) (qx) (qy) (qz) (ra) (rb) (rc) (rd) (re) (rf) (rg) (rh) (ri) (rj) (rk) (rl) (rm) (rn) (ro) (rp) (rq) (rr) (rs) (rt) (ru) (rv) (rw) (rx) (ry) (rz) (sa) (sb) (sc) (sd) (se) (sf) (sg) (sh) (si) (sj) (sk) (sl) (sm) (sn) (so) (sp) (sq) (sr) (ss) (st) (su) (sv) (sw) (sx) (sy) (sz) (ta) (tb) (tc) (td) (te) (tf) (tg) (th) (ti) (tj) (tk) (tl) (tm) (tn) (to) (tp) (tq) (tr) (ts) (tt) (tu) (tv) (tw) (tx) (ty) (tz) (ua) (ub) (uc) (ud) (ue) (uf) (ug) (uh) (ui) (uj) (uk) (ul) (um) (un) (uo) (up) (uq) (ur) (us) (ut) (uu) (uv) (uw) (ux) (uy) (uz) (va) (vb) (vc) (vd) (ve) (vf) (vg) (vh) (vi) (vj) (vk) (vl) (vm) (vn) (vo) (vp) (vq) (vr) (vs) (vt) (vu) (vv) (vw) (vx) (vy) (vz) (wa) (wb) (wc) (wd) (we) (wf) (wg) (wh) (wi) (wj) (wk) (wl) (wm) (wn) (wo) (wp) (wq) (wr) (ws) (wt) (wu) (wv) (ww) (wx) (wy) (wz) (xa) (xb) (xc) (xd) (xe) (xf) (xg) (xh) (xi) (xj) (xk) (xl) (xm) (xn) (xo) (xp) (xq) (xr) (xs) (xt) (xu) (xv) (xw) (xx) (xy) (xz) (ya) (yb) (yc) (yd) (ye) (yf) (yg) (yh) (yi) (yj) (yk) (yl) (ym) (yn) (yo) (yp) (yq) (yr) (ys) (yt) (yu) (yv) (yw) (yx) (yy) (yz) (za) (zb) (zc) (zd) (ze) (zf) (zg) (zh) (zi) (zj) (zk) (zl) (zm) (zn) (zo) (zp) (zq) (zr) (zs) (zt) (zu) (zv) (zw) (zx) (zy) (zz)	(a) Retains existing substance of law on priority of invention but generally a patent would be issued to the first to file with intervening claims to the same invention. Where there are competing claims to the same invention, the issue of priority is determined by the date the patent is issued, not the date the application is filed. (1) (b) (i) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kk) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne		

Existing Law	President's Commission Recommendation	Patent (Revised Bill) H.R. 524 & S. 1042	AIA Bill H.R. 1066 & S. 2547 (with amendments)	H.R. 1147	H.R. 7454 & S. 1891	H.R. 10006 & S. 2104	ATLA
Only complete applications meeting the requirements of §§ 111 and 112 may be filed	A preliminary application may be used to secure a (1) grace period and (2) a right of priority if the disclosure subsequently appears in a complete application. If the disclosure is not in a complete application, the preliminary application is entitled to a right of priority only if the claims need not be included. If the disclosure is not in a complete application, the preliminary application is not entitled to the benefit of the grace period. A preliminary application for all subject matter disclosed in the preliminary application.	Provides for the filing of preliminary applications [§ 111] from the date of filing of the preliminary application to the date of filing of the complete application. If the invention is not patented, including every claim, the disclosure of the invention in the preliminary application is not entitled to the benefit of the grace period. A preliminary application for all subject matter disclosed in the preliminary application.	Does not provide for the filing of preliminary applications.	RECOMMENDATION NO. II Does not provide for the filing of preliminary applications.	Does not provide for the filing of preliminary applications.	Does not provide for the filing of preliminary applications.	Does not provide for the filing of preliminary applications unless the applicant has adopted a system.

EXCEPTIONS TO PRIOR ART

RECOMMENDATION NO. III	RECOMMENDATION NO. IV	RECOMMENDATION NO. V	RECOMMENDATION NO. VI
Retains one year "absolute" grace period of existing law [§ 102 (b)]	Same as existing law	Same as existing law	Same as existing law
Provides a one year "person-to-person" grace period as noted in the text of the recommendation (b).	Same as existing law	Same as existing law	Same as existing law
Provides a one year "person-to-person" grace period as noted in the text of the recommendation (b).	Same as existing law	Same as existing law	Same as existing law

CLASSES OF PATENTABLE SUBJECT MATTER

RECOMMENDATION NO. I	RECOMMENDATION NO. II	RECOMMENDATION NO. III	RECOMMENDATION NO. IV
Same as existing law	Same as existing law	Same as existing law	Same as existing law
Same as existing law	Same as existing law	Same as existing law	Same as existing law
Same as existing law	Same as existing law	Same as existing law	Same as existing law

Existing Law	President's Commission Recommendation	Patent Reform Bill H. R. 5924 & S. 1042	ABA BILL H. R. 13951 & S. 5797 (with amendments)	H. R. 11447	H. R. 754 & S. 1091	H. R. 10005 & S. 2164	APLA
(d) The misjoinder or non-joinder of joint inventors by the Commissioner, without deceptive intention, may be corrected without affecting the validity of the patent (secs. 136 and 256). However, a patent in which the sole inventor is named will be held invalid.	(d) "Omission of an inventor's name from an invention, without deceptive intent, shall not affect validity, and shall not be a ground for invalidation (secs. 111 (d) and 256)."	(d) Adopts Commissioner's recommendation [§ 111 (d) and 256].	(d) Same as Patent Reform Bill [§ 111(c) and 256].	(d) Section 25a same as above quite from § 115.	(d) Adopts Commissioner's recommendation [§ 256].	(d) See above quite from § 123.	(d) Same as Patent Reform Bill.

RECOMMENDATION NO VI
CLAIM FOR PRIORITY DATE

Existing Law	President's Commission Recommendation	ABA BILL H. R. 13951 & S. 5797 (with amendments)	H. R. 11447	H. R. 754 & S. 1091	H. R. 10005 & S. 2164	APLA
A claim for priority based on a foreign application must be made before the U.S. patent is granted, or at such time as the Commissioner is considering the U.S. application (secs. 110 and 136). A claim for the benefit of the foreign application must be made at any time during the pendency of the later filed application (§ 120).	"Any claim for a priority or foreign application must be made at the time a complete application is filed."	Adopts Commissioner's recommendation [§ 136b, 136(c) & 120(b)(4)].	(d) Section 25a same as above quite from § 115.	(d) Same as existing law.	(d) Same as existing law.	(d) Same as existing law.

RECOMMENDATION NO VII
PUBLICATION

Existing Law	President's Commission Recommendation	ABA BILL H. R. 13951 & S. 5797 (with amendments)	H. R. 11447	H. R. 754 & S. 1091	H. R. 10005 & S. 2164	APLA
(a) Patent applications are kept in confidence until a time when publication occurs [§ 11(a)(1) and 122].	(a) Recommends publication of pending applications, within eighteen to twenty-four months of their earliest effective filing date, or appeal, whichever comes first.	(a) A pending complete application that already published as soon as practicable after such time, not less than eighteen months and not more than twenty-four months, from the earliest effective filing date claimed, except that publication of applications under circumstances established by the Commissioner when such action will expedite the processing of such applications. [§ 123(a)]	(a) Pending complete application of pending applications to the public inspection within eighteen months after their effective filing date and shall not be published after § 120(b).	(a) Same as existing law.	(a) No provision for publication of pending applications within a specified time period after their filing.	(a) No provision for publication of pending applications within a specified time period after their filing.
(b) No provision for the publication of a pending application.	(b) An applicant, for any reason, may request earlier publication of his pending complete application.	(b) "An applicant may, upon the payment of the prescribed fee, request earlier publication of his pending complete application shall after the request. [§ 123 (b)]."	(b) An applicant may, at any time, request that his application be published promptly thereafter [§ 120(b)].	(b) Same as existing law.	(b) An applicant may decline to the public all subject matter claimed in his patent application will be published with a notation that the claims have been so declined [§ 123].	(b) See (a).

Existing law	President's Commission Recommendation	Patent Reform Bill H. R. 3142 & S. 1042	ABA BILL H. R. 1351 & S. 937 (with amendments)	H. R. 1147	H. R. 7454 & S. 1691	H. R. 10016 & S. 2164	APLA
There is no specific provision in the statute as to whether or not the Patent Office shall have the burden of persuading that his invention is patentable.	The applicant shall have the burden of persuading the Patent Office that a claim is allowable. [§ 137].	In all proceedings in the Patent Office in which the applicant has the burden of persuasion, the applicant shall have the burden of persuading the Patent Office that a claim is allowable. [§ 137].	Same as existing law.	Same as existing law.	Same as existing law.	Same as existing law.	Same as existing law. Section 137 appears in 137 of S. 1042.
RECOMMENDATION NO. X BURDEN OF PERSUASION							
(a) There is no formal procedure for the citation by the Patent Office of prior art during the pendency of an application bearing on the patentability of pending applications.	(a) "The Patent Office shall have the burden of persuasion in proceedings in which the pendency of which is explained in writing, cited against an applicant, after the publication of the application, and after the citation period following allowance of the application to the Board of Appeals. If the Patent Office, after the citation period, should not be, or have been, allowed, the applicant shall have the burden of persuasion on the determination and to narrow the scope of the claim. The issue of originality or inventorship shall be maintained in confidence."	(a) Adopts the Commission's recommendation in (b), (c) and (d), except (1). There is no citation period following a notice of appeal, and the citation period following allowance may be from three months to one year, as determined by the Commissioner.	(a) Same as Patent Reform Commission recommendation (e). It is specifically provided: "Whether or not any person chooses to present in person or by counsel, in the proceedings of this section, he shall not be forced or in any way to be required to asserting comparable grounds in defense of an invention, or to appear under an affidavit or relief proceedings." [§ 136(f)].	(a) Provides for the citation period at any time during the pendency of an application, and the citation period in the file of the application [§ 137 (a)]. A person appearing in person or by counsel can have interrogatories regarding prior art served on the inventor or his agent of process who may know of prior art, and evidence may be taken, under rule 31 FRCP [§ 137(b)].	(a) Same as existing law.	(a) Same as existing law.	Diagrams & Use of S. 1042 as existing law. Accepts Commission's recommendation. No effect in inter partes proceeding involving him.
(b) Public use proceedings may be instituted by any party during the pendency of an application. The issue of originality or inventorship may be raised in a reference proceeding [§ 135].	(b) Public use proceedings, as at present, may be instituted during the citation period.	(b) Any person may notify the Patent Office during the citation period that he has knowledge of prior art in such application was in public use or on sale prior to the effective date of the application, or (2) the inventor named in such application did not himself invent the subject matter of the application. If such person, within the time specified above makes offers to present evidence in support of such showing, the matter shall be determined by the Patent Office. Commissioner may establish by regulation. [§ 136]	(b) Any person may notify the Patent Office during the citation period that he has knowledge of prior art in such application was in public use or on sale prior to the effective date of the application, or (2) the inventor named in such application did not himself invent the subject matter of the application. If such person, within the time specified above makes offers to present evidence in support of such showing, the matter shall be determined by the Patent Office. Commissioner may establish by regulation. [§ 136]	(b) See (a) above.	(b) Same as existing law.	(b) Same as existing law.	(b) Same as existing law.

Existing Law	President's Commission Recommendation	Patent Reform Bill H. R. 3924 & S. 1942	AIA Bill (with Amendments) H. R. 1341 & S. 2597	H. R. 11447	H. R. 2454 & S. 1691	H. R. 10006 & S. 2104	AFLA
"Every patent shall contain a grant to the patentee, for a term of years, of the right to exclude others from making, using or selling the invention..." [§ 134].	"The term of a patent shall expire twenty years after the date of the effective U.S. filing date..." [§ 134].	Same as Patent Reform bill [§ 154 (b)].	RECOMMENDATION NO. XVIII TERMS OF PATENT [§ 153 (b)]. "The term of a patent shall expire twenty years from the date of the filing date in the United States or, if the patent is claimed from the earliest such prior date claimed, then from the date of the filing date in a foreign country which may be taken into consideration..." [§ 154 (b)].	Same as Patent Reform bill [§ 153 (b)].	Same as Patent Reform bill [§ 154 (b)].	Same as existing law except conditional clause when with the patent or after ten years, whichever occurs later [§ 135].	The term of a patent shall expire twenty years after the date of the effective U.S. filing date..." [§ 135].
"The issuance of a patent may be delayed whenever publication or disclosure by the grantee of the invention is necessary to the national security..." [§ 181]. An applicant is entitled to receive compensation for damage caused by the order of the Secretary of Commerce of the invention by the Government..." [§ 183].	"The term of a patent, whose issuance has been delayed by reason of the application of the patent law, shall be extended for a period equal to the delay in issuance of the patent after notice of allowability..." [§ 181].	"The term of a patent whose issuance has been delayed by reason of the application of the patent law, shall be extended for a period equal to the delay in issuance of the patent after notice of allowability..." [§ 181].	RECOMMENDATION NO. XIX SECRET ORDER Publication of the application and issuance of a patent may be delayed "whenever publication of the invention is necessary to the national security..." [§ 181]. Remainder same as existing law.	Same as existing law.	Same as Patent Reform bill [§ 183 (c)]. Also retains § 183 of existing law.	Same as existing law.	Same as existing law.
"A patentee or applicant may claim the entire term, or any terminal part of the term, of a patent if he is entitled to be granted a patent of double patenting (i.e., that an applicant is attempting to obtain patents on the same invention) can be overcome in certain circumstances by the Secretary of Commerce, which results in both patents expiring at the same time.	"The filing of a terminal disclaimer shall have no effect in overcoming a holding of double patenting."	"The fact that two patents have been or may be issued expire at the same time by reason of a terminal disclaimer shall constitute an act of double patenting or invalidity of a claim in either..." [§ 253 (c)].	RECOMMENDATION NO. XX TERMINAL DISCLAIMER A patent may be declared or declared invalid solely by cause of the existence of one or more patents which expire on the same date as a result of filing on the same date or as otherwise, shall have no effect in overcoming a holding of the patentability or validity of a claim in either..." [§ 253 (c)].	Same as existing law.	Same as existing law.	Same as existing law.	Same as ABA Bill
"The importer has the right to exclude others from making, using, or selling the invention in the United States..." [§ 154]. The importation of a product made abroad by a process of infringement, a product made in another country by a process patented in the United States shall be liable as an infringer..." [§ 27 (b)]. Wherever, without authority of the patentee, imports into the United States, for purposes of sale, a product made in another country by a process patented in the United States, during the term of the patent for, infringes the patent..." [§ 27 (a)].	"The importation into the United States of a product made abroad by a process of infringement, a product made in another country by a process patented in the United States shall be liable as an infringer..." [§ 27 (b)]. Wherever, without authority of the patentee, imports into the United States, for purposes of sale, a product made in another country by a process patented in the United States, during the term of the patent for, infringes the patent..." [§ 27 (a)].	"Wherever, without authority of the patentee, imports into the United States, for purposes of sale, a product made in another country by a process patented in the United States, during the term of the patent for, infringes the patent..." [§ 27 (a)].	RECOMMENDATION NO. XXI IMPORTATION "Except as otherwise provided in this title, whoever without authority of the patentee, imports into the United States, for purposes of sale, a product made in another country by a process patented in the United States, during the term of the patent for, infringes the patent..." [§ 27 (a)].	Wherever, without authority of the patentee, imports into the United States, for purposes of sale, a product made in another country by a process patented in the United States, during the term of the patent for, infringes the patent..." [§ 27 (a)].	Wherever, without authority of the patentee, imports into the United States, for purposes of sale, a product made in another country by a process patented in the United States, during the term of the patent for, infringes the patent..." [§ 27 (a)].	Adopts Commission's recommendation but adds regard to whether patent protectable in the foreign country where made	

[illegible]

Existing Law	President's Commission Recommendation	Patent Reform Bill H. R. 524 & S. 1042	H. R. Bill 2597 (with amendments)	H. R. 1447	H. R. 7454 & S. 1091	H. R. 10606 & S. 2104	AFLA
	maximum tenure of eight years, and the Director, and other support as deemed necessary, shall be provided	including the quality of the examination, the publication of pending applications, the scope of any deferred examination system, and to report to the Secretary of Commerce on the results of the examination and recommendations. (c) The Secretary of Commerce shall submit to the Council an executive secretary and such professional, secretarial, clerical, and facilities as are deemed necessary to the conduct of its business." (§ 13)					

RECOMMENDATION NO XXVII PATENT OFFICE FINANCING

Existing Law	President's Commission Recommendation	Patent Reform Bill H. R. 524 & S. 1042	H. R. Bill 2597 (with amendments)	H. R. 1447	H. R. 7454 & S. 1091	H. R. 10606 & S. 2104	AFLA
Patent fees are established by statute (§ 41) and paid into the Treasury of the United States (§ 42)	Patent Office financing should be established on the following basis: 1. The Patent Office should not be required to be financed by the Treasury. 2. The Commissioning of the Patent Office should be authorized to set fees for Patent Office services established by Congress. Such fees shall be determined in accordance with the cost of providing the services. 3. The Patent Office should be authorized to maintain a "revolving fund" of all its receipts to support its operation.	The Commissioner shall prescribe by regulations the fees to be charged for the filing and examination of patent applications, for the issuance of patents, and for other matters set forth in this title as requiring a fee and for copies of records, and for the services furnished by the Patent Office, designed to effect an overall recovery of the costs of operation of the Patent Office. (§ 41a)	Same as existing law.	(a) The Commissioner shall prescribe by regulation the fees to be charged for the filing and examination of records and publications and for services furnished by the Patent Office, designed to effect a recovery in the range of 65 to 75 per centum of the costs of operation of the Patent Office. (b) The Commissioner shall prescribe by regulation the fees to be charged for the issuance of patents, and for the services furnished by the Patent Office, designed to effect an overall recovery of the costs of operation of the Patent Office. (§ 41b)	Same as existing law.	Same as existing law.	Approves the principle that the Patent Office should adequately insure first-class staff, housing and equipment, that the Patent Office should be self-sustaining, and that any fees charged should be reasonably commensurate with the cost of providing the particular service. Opposes general authorization for administrative establishment of Patent Office fees without the approval of such fees.

RECOMMENDATION NO XXVIII PROPRIETY OF FINAL REJECTION

Existing Law	President's Commission Recommendation	Patent Reform Bill H. R. 524 & S. 1042	H. R. Bill 2597 (with amendments)	H. R. 1447	H. R. 7454 & S. 1091	H. R. 10606 & S. 2104	AFLA
	The applicant should be permitted to amend his case following any new ground of objection or rejection by the Patent Office, and the new ground of objection or rejection is necessitated by the amendment or re-examination by the applicant.						No resolution.

Existing Law	President's Commission Recommendation	Patent Reform Bill H. R. 5924 & S. 1042	ABA Bill H. R. 13951 & S. 2597 (with amendments)	H. R. 11497	H. R. 7454 & S. 1691	H. R. 10006 & S. 2164	ATLA
	Recommends a program to aid in the search, storage and retrieval of new technology.	Patent Reform Bill H. R. 5924 & S. 1042	ABA Bill H. R. 13951 & S. 2597 (with amendments)	H. R. 11497	H. R. 7454 & S. 1691	H. R. 10006 & S. 2164	ATLA
RECOMMENDATION NO. XXIX CLASSIFICATION AND INFORMATION RETRIEVAL							
	Recommends a program to aid in the search, storage and retrieval of new technology.	Patent Reform Bill H. R. 5924 & S. 1042	ABA Bill H. R. 13951 & S. 2597 (with amendments)	H. R. 11497	H. R. 7454 & S. 1691	H. R. 10006 & S. 2164	ATLA
RECOMMENDATION NO. XXX INFORMATION DISSEMINATION							
	The Patent Office should be provided vigorously with the means for the production of all search files.	Patent Reform Bill H. R. 5924 & S. 1042	ABA Bill H. R. 13951 & S. 2597 (with amendments)	H. R. 11497	H. R. 7454 & S. 1691	H. R. 10006 & S. 2164	ATLA
	2. Cooperate with foreign national patent offices, international patent organizations, and patent offices in the wide index of patents and published applications for patents.	Patent Reform Bill H. R. 5924 & S. 1042	ABA Bill H. R. 13951 & S. 2597 (with amendments)	H. R. 11497	H. R. 7454 & S. 1691	H. R. 10006 & S. 2164	ATLA
	The legislation implementing the recommendations of the Commission should become law with regard to both patents and pending applications.	Patent Reform Bill H. R. 5924 & S. 1042	ABA Bill H. R. 13951 & S. 2597 (with amendments)	H. R. 11497	H. R. 7454 & S. 1691	H. R. 10006 & S. 2164	ATLA
	Recommends that the Congress give careful consideration to the capabilities of modern information technology in communication technologies involving a self-consistent, mutually concerned patent act.	Patent Reform Bill H. R. 5924 & S. 1042	ABA Bill H. R. 13951 & S. 2597 (with amendments)	H. R. 11497	H. R. 7454 & S. 1691	H. R. 10006 & S. 2164	ATLA
	Approves in principle mutual efforts among foreign countries to improve the operability of patent systems throughout the world, and the United States patent system made to increase unity of the international patent system unless it be shown that such changes will favorably affect the domestic operation and the United States Patent System.	Patent Reform Bill H. R. 5924 & S. 1042	ABA Bill H. R. 13951 & S. 2597 (with amendments)	H. R. 11497	H. R. 7454 & S. 1691	H. R. 10006 & S. 2164	ATLA
	No position.	Patent Reform Bill H. R. 5924 & S. 1042	ABA Bill H. R. 13951 & S. 2597 (with amendments)	H. R. 11497	H. R. 7454 & S. 1691	H. R. 10006 & S. 2164	ATLA
	No position.	Patent Reform Bill H. R. 5924 & S. 1042	ABA Bill H. R. 13951 & S. 2597 (with amendments)	H. R. 11497	H. R. 7454 & S. 1691	H. R. 10006 & S. 2164	ATLA

RECOMMENDATION NOS. XXXII THROUGH XXXV GOVERNMENT PATENT POLICY AND INTERNATIONAL ACTION

Pending Law	President's Commission Recommendation	Patent Reform Bill H. R. 3924 & S. 1042	AHA Bill H. R. 13951 & S. 2597 (with amendments)	H. R. 11447	H. R. 7454 & S. 1691	H. R. 11006 & S. 2104	APL A
<p style="text-align: center;">MATTERS NOT DIRECTLY RELATED TO RECOMMENDATIONS OF THE PRESIDENT'S COMMISSION (Chapters are in Title 35, U. S. Code.)</p> <p style="text-align: center;">CHAPTER 1. ESTABLISHMENT, OFFICERS, FUNCTIONS</p>							
A Commissioner of Patents, one first assistant Commissioner, two assistant Commissioners, and not more than twenty-four examiners-in-chief shall be appointed by the President, by and with the advice and consent of the Senate. . . . The Secretary of Commerce, upon the nomination of the Commissioner in accordance with law, shall appoint all other officers and employees. [§ 3 (a)]	There shall be in the Patent Office a Commissioner of Patents, one first assistant Commissioner, two assistant Commissioners, and not more than twenty-four examiners-in-chief shall be appointed by the President, by and with the advice and consent of the Senate. . . . The Secretary of Commerce, upon the nomination of the Commissioner in accordance with law, shall appoint all other officers and employees. [§ 3 (a)]	Same as existing law [§ 3 (b)]	Same as existing law not included.	Same as existing law [§ 3 (b)]	Same as existing law [§ 3 (a)]	Same as existing law.	No position
The Secretary of Commerce may vest in himself the functions of the Commissioner and the officers and employees specified in this title and may from time to time authorize any one or more of his subordinates or employees. [§ 3 (c)]	Same as existing law [§ 3 (b)]	Same as existing law [§ 3 (b)]	Same as existing law not included.	Same as existing law [§ 3 (b)]	Same as existing law [§ 3 (a)]	Same as existing law.	No position
The Commissioner may, subject to the approval of the Secretary of Commerce, establish regulations, not inconsistent with law, for the conduct of proceedings in the Patent Office. . . . The Commissioner may, subject to the approval of the Secretary of Commerce, establish regulations, not inconsistent with law, for the conduct of proceedings in the Patent Office. [§ 6]	The Commissioner may, subject to the approval of the Secretary of Commerce, establish regulations, not inconsistent with law, for the conduct of proceedings in the Patent Office. . . . The Commissioner may, subject to the approval of the Secretary of Commerce, establish regulations, not inconsistent with law, for the conduct of proceedings in the Patent Office. [§ 6]	The Commissioner may, subject to the approval of the Secretary of Commerce, establish regulations, not inconsistent with law, for the conduct of proceedings in the Patent Office. . . . The Commissioner may, subject to the approval of the Secretary of Commerce, establish regulations, not inconsistent with law, for the conduct of proceedings in the Patent Office. [§ 6]	The Commissioner may, subject to the approval of the Secretary of Commerce, establish regulations, not inconsistent with law, for the conduct of proceedings in the Patent Office. . . . The Commissioner may, subject to the approval of the Secretary of Commerce, establish regulations, not inconsistent with law, for the conduct of proceedings in the Patent Office. [§ 6]	Same as Patent Reform bill [§ 6]	Same as Patent Reform bill [§ 6]	Same as existing law	No position
The Board of Appeals [§ 7] does not determine questions of priority in interferences. . . . The Board of Appeals [§ 7] does not determine questions of priority in interferences. [see § 135] A board of interferences shall be established by the Secretary of Commerce under § 306 of the National Aeronautics and Space Act of 1958 and the Secretary of the Atomic Energy Act of 1954. [42 USC 2182.]	The Board of Appeals [§ 7] does not determine questions of priority in interferences. . . . The Board of Appeals [§ 7] does not determine questions of priority in interferences. [see § 135] A board of interferences shall be established by the Secretary of Commerce under § 306 of the National Aeronautics and Space Act of 1958 and the Secretary of the Atomic Energy Act of 1954. [42 USC 2182.]	Same as Patent Reform bill [§ 7 (b)(5)]. Regulations for the determination of priority in interferences shall be as being performed by a Board of Patent Interferences in accordance with law, and shall be effective on the date of the Patent Reform bill.	Same as Patent Reform bill [§ 7 (b)(5)]. Regulations for the determination of priority in interferences shall be as being performed by a Board of Patent Interferences in accordance with law, and shall be effective on the date of the Patent Reform bill.	Same as Patent Reform bill [§ 7 (b)(5)]	Retains a "board of interferences." [§ 135(a)]	Same as existing law	No position
The Commissioner may designate any patent examiner of higher grade than the lowest, having the requisite ability, to serve as examiner-in-chief for a period not exceeding six months each. An examiner so designated shall be entitled to act as a member of the Board of Appeals. Not more than one acting examiner-in-chief shall be a member of the Board of Appeals hearing an appeal or considering a case. [§ 7 (d)].	The Commissioner may designate any patent examiner of higher grade than the lowest, having the requisite ability, to serve as examiner-in-chief for a period not exceeding six months each. An examiner so designated shall be entitled to act as a member of the Board of Appeals. Not more than one acting examiner-in-chief shall be a member of the Board of Appeals hearing an appeal or considering a case. [§ 7 (d)].	Same as Patent Reform bill [§ 7 (d)].	Same as Patent Reform bill [§ 7 (d)].	Same as Patent Reform bill [§ 7 (d)]	Same as Patent Reform bill [§ 7 (d)]	Same as existing law	No position

Existing Law	President's Commission Recommendation	Patent Reform Bill H. R. 3124 & S. 1042	ABA Bill H. R. 1951 & S. 2597 (with amendments)	H. R. 11407	H. R. 7454 & S. 1691	H. R. 10006 & S. 2184	APLA
Chapter 1 (continued)							
The Commissioner may supply printed copies of specifications and drawings of patents to publishers of the United States and foreign States which shall maintain such copies for the use of the Commissioner. The Commissioner may issue a year's issue established for this purpose in section 41(a)(9) of this title. [§ 12.]	The Commissioner shall prescribe by regulations the fee to be paid for patent copies to be printed, and the manner in which they may be prescribed by regulations when copies of Patent Office publications are to be provided without charge or in exchange for records or publications of foreign countries. [§ 41(a)(11).]	The Commissioner shall prescribe by regulations the fee to be paid for patent copies to be printed, and the manner in which they may be prescribed by regulations when copies of Patent Office publications are to be provided without charge or in exchange for records or publications of foreign countries. [§ 41(a)(11).]	The Commissioner shall charge a fee of 50 cents per copy for printed patents, with "special" copies of Patent Office publications, and the manner in which they may be prescribed by regulations when copies of Patent Office publications are to be provided without charge or in exchange for records or publications of foreign countries. [§ 41(a)(11).]	Generally the same as the Patent Reform bill [§ 41(a) and (b)]. See recommendations from the ABA, supra.	The Commissioner shall charge a fee of 50 cents per copy for printed patents, with "special" copies of Patent Office publications, and the manner in which they may be prescribed by regulations when copies of Patent Office publications are to be provided without charge or in exchange for records or publications of foreign countries. [§ 41(a)(11).]	Same as existing law	No position
The Commissioner may require papers filed in the Patent Office to be printed or typewritten. [§ 22.]	Same as existing law [§ 22].	Same as existing law [§ 22].	Same as existing law, except that the Commissioner may by regulation prescribe the form, and manner of reproduction, of papers filed in the Patent Office. [§ 42.]	The Commissioner may by rule, prescribe the form and manner of reproduction, of papers filed in the Patent Office. [§ 22.]	Same as existing law [§ 22].	Same as existing law	No position
The Commissioner, subject to the approval of the Secretary of Commerce, may prescribe the recognition and conduct of agents, attorneys, or other persons representing applicants or other persons before the Patent Office, and may require them, before being recognized as such, to be of good moral character and reputation and to have the necessary qualifications to render to applicants or other persons assistance in the presentation or prosecution of their applications. [§ 31.]	Same as existing law [§ 31].	Same as existing law [§ 31].	Same as existing law, except that the Commissioner may by regulation prescribe the form, and manner of reproduction, of papers filed in the Patent Office. [§ 42.]	The Commissioner may by rule, prescribe the form and manner of reproduction, of papers filed in the Patent Office. [§ 22.]	Same as existing law [§ 31].	Same as existing law	No position

CHAPTER 2. PROCEEDINGS IN THE PATENT OFFICE

CHAPTER 3. PRACTICE BEFORE PATENT OFFICE

Existing Law	President's Commission Recommendation	Patent Reform Bill, H. R. 3541 & S. 1042	ABA Bill (with amendments) H. R. 3541 & S. 2597	H. R. 1144*	H. R. 7454 & S. 1891	H. R. 10806 & S. 2104	ATLA
CHAPTER 10. PATENTABILITY OF INVENTIONS							
Inventions must be "useful" to the public. There is no definition of the term "useful" in the statute. Courts have held that inventions must be "useful" in the intermediate (i.e., those whose disclosed use is only in the intermediate stage of development of § 101).	Same as existing law.	Same as existing law.	Inventions must be "useful" to the public. The term "useful" shall include, but not be limited to, utility in agriculture, commerce, industry, health, or research.	Inventions must be "useful" to the public. The term "useful" shall include, but not be limited to, utility in agriculture, commerce, industry, health, or research.	Same as existing law.	Same as existing law.	Inventions must be "useful" to the public. The term "useful" shall include, but not be limited to, utility in agriculture, commerce, industry, health, or research.
A patent specification must be "skilled in the art" to make and use the invention (§ 112).	A patent may not be obtained though the invention is not identical to that disclosed or described in the prior art, if the differences between the subject matter and the prior art are such that the subject matter as a whole would have been obvious at the time that the invention was made to a person having ordinary skill in the art. (Emphasis added.)	A patent may not be obtained though the invention is not identical to that disclosed or described in the prior art, if the differences between the subject matter and the prior art are such that the subject matter as a whole would have been obvious at the time that the invention was made to a person having ordinary skill in the art. (Emphasis added.)	A patent specification must be "skilled in the art" to make the invention, which specification shall also indicate the use" of the invention (§ 112(a)).	A patent specification must be "skilled in the art" to make the invention, which specification shall also indicate the use" of the invention (§ 112(a)).	Same as existing law.	Same as existing law.	No position.
A patent may not be obtained though the invention is not identical to that disclosed or described in the prior art, if the differences between the subject matter and the prior art are such that the subject matter as a whole would have been obvious at the time that the invention was made to a person having ordinary skill in the art. (Emphasis added.)	Same as existing law.	Same as existing law.	Section 107 provides (a) Abandonment of an application for a patent shall constitute an irrevocable election of an invention disclosed therein under the provisions of section 123 or 151 of this title upon the date of the abandonment disclosed therein was abandoned within the meaning of section 102(c), 136 or 151 of this title.	Same as existing law.	Same as existing law.	Same as existing law.	No position.
The specification shall contain a description of the invention, particularly pointing out and distinctly claiming the subject matter which the inventor claims, and which he desires to secure by patent. A claim may be written in independent or dependent form, and shall be construed to include all the limitations of the claim incorporated by reference into the claim. (Emphasis added.)	The specification shall contain a description of the invention, particularly pointing out and distinctly claiming the subject matter which the inventor claims, and which he desires to secure by patent. A claim may be written in independent or dependent form, and shall be construed to include all the limitations of the claim incorporated by reference into the claim. (Emphasis added.)	The specification shall contain a description of the invention, particularly pointing out and distinctly claiming the subject matter which the inventor claims, and which he desires to secure by patent. A claim may be written in independent or dependent form, and shall be construed to include all the limitations of the claim incorporated by reference into the claim. (Emphasis added.)	The specification shall contain a description of the invention, particularly pointing out and distinctly claiming the subject matter which the inventor claims, and which he desires to secure by patent. A claim may be written in independent or dependent form, and shall be construed to include all the limitations of the claim incorporated by reference into the claim. (Emphasis added.)	The specification shall contain a description of the invention, particularly pointing out and distinctly claiming the subject matter which the inventor claims, and which he desires to secure by patent. A claim may be written in independent or dependent form, and shall be construed to include all the limitations of the claim incorporated by reference into the claim. (Emphasis added.)	Same as existing law.	Same as existing law.	No position.

Existing Law	President's Commission Recommendation	Patent Reform Bill H. R. 5924 & S. 1042	ABA Bill H. R. 1395 & S. 1597 [with amendments]	H. R. 1447	H. R. 7454 & S. 1991	H. R. 10006 & S. 2104	API A
Chapter 17 (Continued)							
None. The statute and other provisions of law any person, and his successors, assigns, or legal representatives, shall not be entitled to a patent for an invention if that person, or his successors, assigns, or legal representatives, without procuring the license prescribed in section 184 of this title, have assisted another's making, application for the registration of a utility model, industrial design, or model in respect of the invention, or such person, his successors, assigns, or legal representatives, shall be invalid [§ 185].	Same as existing law [§ 185].	Same as existing law [§ 185].	None. Infringing any other provisions of law any person, and his successors, assigns, or legal representatives, shall not be entitled to a patent for an invention if that person, or his successors, assigns, or legal representatives, without procuring the license prescribed in section 184 of this title, have made, or consented to or assisted another's making, application for the registration of a utility model, industrial design, or model in respect of the invention, or such person, his successors, assigns, or legal representatives, shall be held invalid by a court of competent jurisdiction. The provisions of section 184 of this title [§ 185, un-] changed from existing law.	Same as existing law [§ 185].	Same as existing law [§ 185]. Same as existing law.	Same as existing law.	No position
Section 271 provides in (c) and (d): (c) Whoever sells a component of a patented machine, apparatus, or material composition, or a material for use in practicing a patented process, in such a manner as to adapt the same to be especially made or used for infringing the same, shall be liable as a contributory infringer. (d) Whoever sells a component of a patented machine, apparatus, or material composition, or a material for use in practicing a patented process, in such a manner as to adapt the same to be especially made or used for infringing the same, shall be liable as a contributory infringer. (e) No patent owner otherwise entitled to relief for infringement of a patent shall be liable in damages for the extension of the patent right by the patent owner, or more of the following: (1) derived revenue from acts which if performed by the patent owner would constitute infringement of the patent; (2) licensed or assigned rights in the patent which if performed without his consent would constitute infringement of the patent; (3) the patent rights against infringement.	Same as existing law [§ 271 (b) and (e)].	Same as existing law [§ 271 (b) and (e)].	Eliminates the term "contributory infringer" in (d) and (e). (d) Whoever sells a component of a patented machine, apparatus, or material composition, or a material for use in practicing a patented process, in such a manner as to adapt the same to be especially made or used for infringing the same, shall be liable as a contributory infringer. (e) No patent owner otherwise entitled to relief for infringement of a patent shall be liable in damages for the extension of the patent right by the patent owner, or more of the following: (1) derived revenue from acts which if performed by the patent owner would constitute infringement of the patent; (2) licensed or assigned rights in the patent which if performed without his consent would constitute infringement of the patent; (3) the patent rights against infringement.	Same as existing law.	Same as existing law.	Adapted Commission Recommendation XII	

CHAPTER 28. INFRINGEMENT OF PATENT

The following was taken from the Journal of the Patent Office Society, July 1963, Vol. XLV, No. 7, pages 503, 504, and 550.

CHARACTERISTICS OF INTERFERENCE PRACTICE†

(By Daniel V. de Simone*, James B. Gambrell** and Charles F. Gareau***)

Interference proceedings have been an integral part of our examination system since 1836 when the Commissioner of Patents was first required to determine priority between parties claiming the same invention.¹ The formalities of the practice as we know them today have evolved over the years, in part responsive to specific criticisms by interested parties.² As early as 1912, the Report of a Presidential Commission voiced a number of complaints and proposed a number of remedies.³ More recently, criticisms have been increasing, both in frequency and scope.⁴ It is therefore not surprising that the 1961-62 Management Survey of the U.S. Patent Office recommended that "A thorough study of the patent interference procedure should be undertaken, with a view to its simplification."⁵

While one or more features of interference practice had been investigated and evaluated in the past by the Patent Office, bar associations, Congress, and by independent groups, no detailed investigation was made to ascertain just exactly what happens in the universe⁶ of interferences. Questions on the structure of the practice have brought forth expert guesses, which were accurate to an unknown degree or probability.⁷

To remedy this defect, and as one step by the Patent Office toward implementing the recommendations of the 1961-62 Management Survey, a substantial sample of the interference universe has been selected and analyzed. The results are presented here. It is well to emphasize that the material presented is intended to describe the present interference universe, not to draw value judgments.

It will be helpful at the outset to describe the coverage of this survey, its size and the manner in which the data were processed.

A ten-percent random sample (totaling 658 interferences) was taken by years of all the interferences in the universe (totaling 6572) that were declared during the calendar years 1950 through 1959. A ten year period was selected to avoid seasonal and annual biases, and the particular period was chosen because most of

†The authors wish to acknowledge the substantial contributions of Miss Kathleen H. Claffy, Messrs. P. D. Coogan, W. D. Martin and W. W. Medley, Mrs. Gladys W. Watson and others in helping collect and process the data presented herein.

*Consultant, U.S. Patent Office.

**Director, Office of Legislative Planning, U.S. Patent Office.

***Supervisor, Group 370, U.S. Patent Office.

¹ Act of July 4, 1836, ch. 357, § 8, 5 Stat. 117. The Act of February 21, 1793, ch. 11, § 9, 1 Stat. 318, first provided for interferences but arbitration, not an adversary proceeding, was used.

² For a number of years, these criticisms were evaluated by the Committee on Practice and Procedure, a group composed of experienced Patent Office personnel who served in an advisory capacity to the Commissioner of Patents, until the Office of Legislative Planning was established by the reorganization of the Patent Office in 1962.

³ *Report of the Investigation of the United States Patent Office*, made by the President's Commission on Economy and Efficiency, December 1912. House Document No. 1110, 62nd Cong., 3d Sess. (1912).

⁴ See the digest of comments in Appendix 18 of the *Final Report of the 1961-1962 Management Survey of the U.S. Patent Office*, submitted to the Honorable David L. Ladd, Commissioner of Patents by Earl W. Kintner, Attorney at Law, Washington, D.C. on March 12, 1962. For a short but lucid discussion, see Frost, *The Patent System and the Modern Economy*, Study of the Subcommittee on Patents, Trademarks and Copyrights, Committee on the Judiciary, United States Senate, Study No. 2, 84th Cong., 2d Sess. p. 67 (1957).

⁵ Recommendation No. 87, *1961-62 Management Survey of the U.S. Patent Office*, study prepared for the Subcommittee on Patents, Trademarks and Copyrights, Committee on the Judiciary, United States Senate, 87th Cong., 2d Sess., pp. 5, 57, (1962).

⁶ "Universe" or "universe set" is a term of art in statistics applied to any distinct field forming a closed system, e.g., the population universe of the world, the U.S. patent universe (over 3 million patents).

⁷ In 1946, one hundred consecutive interferences were examined to obtain some information on parts of the interference universe (motions brought in 500 interferences were also analyzed). The data obtained were not as detailed as those presented herein, nor were they as systematically collected. The results of these analyses were not published.

the interferences in the random sample were terminated, as was the prosecution of the involved applications.

* * *

TABLE 2.10c.—MODE BY WHICH COUNTS WERE INTRODUCED AND WHETHER ANY ASSIGNED CASE WAS INVOLVED¹

Mode by which counts were introduced	Assignment status at declaration	
	At least 1 assignee	No assignee
Suggested by examiner.....	177	40
Formulated by examiner.....	120	59
Both of above.....	11	5
Suggested patent claim.....	4	1
Design claim.....	1	1
Copied patent claim.....	197	18
Result of motion or other action in related intf.....	13	0
Total.....	523	124

¹ See note 1 of table 2.10a.

TABLE 2.10d.—DISTRIBUTION OF ASSIGNED CASES IN INTERFERENCES¹

Assignee	Number of cases				
	Total	J-1	J-2	J-3	SP
General Electric Co.....	34	21	1	0	12
Radio Corp. of America.....	30	10	1	0	19
American Telephone & Telegraph Co.....	26	14	0	0	12
General Motors Corp.....	19	9	0	0	10
Sperry Rand Corp.....	18	12	0	0	6
E.I. du Pont de Nemours, & Co.....	16	7	3	0	6
Bendix Aviation Corp.....	15	4	3	0	8
Minneapolis-Honeywell Regulator Co.....	12	5	0	0	7
Westinghouse Electric Corp.....	12	5	1	0	6
Raytheon Manufacturing Co.....	10	6	2	0	2
International Business Machines Corp.....	9	2	1	0	6
International Standard Electric Corp.....	8	1	1	0	6
United States.....	8	5	0	0	3
International Telephone & Telegraph.....	6	3	0	0	3
Sterling Drug, Inc.....	6	4	0	0	2
General Dynamics.....	5	3	0	0	2
Philco Corp.....	5	2	0	0	3
Phillips Petroleum Co.....	5	2	1	0	2
Sylvania Electric Products, Inc.....	5	1	0	0	4
15 assignees of 4 cases each.....	60	25	4	0	31
13 assignees of 3 cases each.....	39	20	4	0	15
34 assignees of 2 cases each.....	68	26	2	1	39
416 assignees of 1 case each.....	416	195	20	2	199
Subtotal:					
Parties having recorded assignees (60 percent).....	832	382	44	3	403
Parties having no recorded assignees (40 percent).....	551	265	36	6	244
Total.....	1,383	647	80	9	647

¹ See note 1 of table 2.10a.

* * *

Senator McCLELLAN. In view of the time, being so near to 12 o'clock, we will recess, and since I have some other committee work, conference work, during the noon hour, we will come back this afternoon at 2 o'clock.

The committee will stand in recess until 2 o'clock.

(Whereupon, at 11:50 a.m., the subcommittee recessed, to reconvene at 2 p.m. of the same day.)

AFTERNOON SESSION

Senator McCLELLAN. The committee will come to order.
Please call the next witness.

Mr. BRENNAN. Mr. Browning.

Senator McCLELLAN. Will you identify yourself, please, and also your associate?

STATEMENT OF RALPH R. BROWNING, PAST PRESIDENT, HOUSTON PATENT LAW ASSOCIATION; ACCOMPANIED BY JOHN KIRK, MEMBER, HOUSTON PATENT LAW ASSOCIATION

Mr. BROWNING. I am Ralph R. Browning, immediate past president of the Houston Patent Law Association, speaking on behalf of that association, and to my left is Mr. John Kirk, member of the association, assisting me today.

Senator McCLELLAN. John Kirk.

Mr. BROWNING. John Kirk. He will not be speaking.

Senator McCLELLAN. He will not be speaking?

Mr. BROWNING. That is correct.

Senator McCLELLAN. Very well. If he wants to say something we will let him.

Mr. BROWNING. He may at that.

Senator McCLELLAN. Very well. You have a prepared statement. Do you want to read it or do you want to have it printed in the record?

Mr. BROWNING. I should like to have the statement printed in the record, if you please, and to highlight it.

Senator McCLELLAN. Together with all of your attachments to it?

Mr. BROWNING. Yes, sir.

Senator McCLELLAN. We will have the statement printed in the record, and we will examine the attachments, Mr. Counsel, and if they are all pertinent, they will either go in the record along with the statement or in the appendix with proper identification, whichever is the practical way to do it after we examine it.

You may proceed.

Mr. BROWNING. Thank you, Mr. Chairman.

First I would like to state that the Houston Patent Law Association is made up of some 85 active patent lawyers practicing in corporate patent departments, in Government organizations such as NASA, and as associates and partners in private patent and general law firms. Those in the patent and general law firms represent all types of patent clients ranging from many individual inventors, through small corporations up to and including large national corporations. The association as such has throughout its existence been intensely interested in preserving and improving the U.S. patent system.

As for myself, I have been exclusively engaged in patent and related work since 1927. This includes between 2 and 3 years as a member of the examining corps of the Patent Office, a similar period of time in the patent department of a large corporation and the remainder of the time in private practice of patent and related law. For some 30 years I have been located in Houston and since 1948 have been a partner in a private patent law firm whose clientele is fairly balanced between individual inventors and corporations having annual business volume of up to \$5 million, plus a few larger national corporations.

The Houston Patent Law Association favors and supports the Yarrow-Tower bill, S. 2164, as the best way of dealing with what were designated by the President's Commission as major problem areas un-

der the present law. It strongly opposes S. 1042 but favors and will support S. 2597 if amended to incorporate one portion of the Yarborough-Tower bill which has not been incorporated; namely, the conditional claims feature of S. 2164.

It also favors such further slight amendments of S. 2597 as may be necessary to incorporate fully the other features that are in the Yarborough-Tower bill.

The problem areas to which I referred mainly have to do with those difficulties that resulted in delay in the issuance of patents.

Our special committee of our association studied the present law, and then studied the President's Commission report, and it appeared that the chief delays that the President's Commission report was concerned with were those stemming from delays in issuance due to interferences, delays in issuance due to appeals from adverse rulings by the patent examiners, and delays in examination by the examiners. The Yarborough-Tower bill was a concept to amend the present law, not to write a new law, the purpose being to retain that which the President and the Commission characterized as a law that had served the country well for many years, and to amend it only in those respects necessary to overcome specific problem areas.

Also in the problem area category, as pointed out by the President's Commission, were difficulties resulting from misjoinder of inventors, that is, joining two or more inventors together in a patent application in which there were patentable features, in which not all of the inventors named had taken part.

Then there was the case of missing or hostile inventors who would not sign a patent application even though they had assigned the rights to the invention, and to any patent on it.

Finally, there was the consideration of the undue load on the Patent Office, due to unimportant applications generally referred to as applications which were filed for protection purposes, in order to enable the applicants to contest the right of someone else to a patent, but who did not particularly desire to get a patent themselves.

The Yarborough-Tower bill sought to amend the present law by first of all avoiding these delays due to interferences, by issuing the patents to the applicants whose applications would interfere with one another, and it would issue the patent to the senior applicant unconditionally. It would be a patent the same as that granted to anyone else, and he could act upon it immediately.

It would also issue a patent to the junior applicant, and he would have in his patent the claims which might interfere with the senior applicant, but those claims would be ineffective unless and until he won an interference with the senior party after the issuance of the patents.

The purpose here was to avoid the necessity for the early arbitrary publication of patent applications, and it was felt that this would at one fell swoop dispose of all of the delays due to interferences without, however, in any sense affecting any applicant's right to contest priority, and to show that the junior applicant was indeed the first inventor under the first inventor rule which now prevails in our law.

Next, in order to avoid the delays due to appeals in the Patent Office, the Yarborough-Tower bill would issue the patent immediately to a person who filed an appeal from an adverse decision by the patent

examiner. This issuance would carry with it any claims which the patent examiner had allowed as unconditional claims, and the patentee could act on those, file suit on them for infringement, or anything else the same as he could with a regular patent, but as for the claims on appeal, they would be printed in the patent also, but would be ineffective unless and until an appeal was won, and if the appeal was lost, or as in the other cases if the interference was lost, the conditional patent claims would be canceled.

Then in lieu of deferred examination, the Yarborough-Tower Act would provide in essence that the examination schedule would be that which the Commissioner has instituted, and has found so successful that it has definitely reduced the backlog.

We feel that this should be made statutory, in order that it cannot be changed willy-nilly, when someone thinks an emergency exists that dictates some change.

So the Yarborough-Tower bill would provide for continuing prosecution before the examiner of any application which was not otherwise ready for issue, and would put it in interference immediately, and when it was otherwise ready for issue, it would be issued. It would issue the patent on appeal, with the claims that are on appeal. Likewise conditional until the appeal was won. The senior party's patent so issued in interference would be unconditional. The junior party's patent as to those claims that were in the interference would be conditional.

This I think is of some importance, because even in those cases which have been advocated by many of the patent law associations, in which provision would be made for immediate issuance of the patent first to file, allowing the second to file then to provoke an interference, only one patent would be published. The other would be held up. And if, as is seldom the case, both patents had the identical disclosure, there would seem to be no advantage in issuing the second one. But this is almost never the case. The disclosures are different. And if only one is issued, then the public is deprived of the advantage of having them both.

Furthermore, there are in the junior applicant's cases, in many instances claims which were not involved in the interference, and are allowable, and if his patent is not issued, he, especially in the context of the ABA bill, with its 20-year from filing date term for the patent, would be deprived of a good portion of his patent term, unless his patent were issued promptly.

Now, as for the assignee feature, the Yarborough-Tower bill provides substantially the same as S. 1042, except that it does not require a statement by the inventor. We feel that if it required a statement by the inventor, that this would in essence nullify the provision, because usually these cases arise only in instances in which the inventor is either not to be found or is hostile and will not sign.

Finally, with regard to the disposition of cases in which the application was filed mainly for the purpose of protection and to enable the party filing to contest someone else's right to the patent, we did not know it at the time, but we adopted substantially the provisions of the McClellan bill, S. 3007 of the 88th Congress, which I believe was proposed by the American Patent Law Association; namely, that such an applicant would have the right to have his application published and

dedicated to the public, but would retain the right to contest priority with some other applicant.

So we advocate, first of all, the amendment of the present act in accordance with the Yarborough-Tower bill. However, the American Bar Association bill, Dirksen's 2597, incorporates some desirable changes additional. It has a great deal of support. We feel that it preserves in essence the values of the present patent law, and it incorporates all but one of the major features of the Yarborough-Tower bill. That feature is the conditional claiming feature which I have just been discussing.

It is noteworthy, although I think not generally recognized, that if we put aside semantics for the moment, the ABA bill already has an instance of conditional claiming involved in it. In those instances in which a published application during the citation period has some citations against it, and as a result of those citations the progress of the patent application through the Patent Office and its issuance is delayed, the ABA bill would provide that if the applicant is successful in getting the claims involved, and getting, ultimately getting a patent on them, he may, by giving certain notice to infringers, claim damages for the interim period while he was trying to get his patent.

This is not nominally issuing the patent with conditional claims, but it is saying that even though the patent isn't issued, these claims, once they are won by the applicant, will be effective to enable him to collect back damages, and thus they are in essence conditional claims.

We feel that even though the act provides for the issuance of patents to the senior party in the event of an interference, with the junior party being allowed then to provoke an interference, it isn't quite sufficient to completely benefit the public, because the junior applicant's patent would not be granted, the public would not have the benefit of this publication, the claims of the junior applicant which might not be involved in the interference would be withheld from him unjustly for a considerable period of time while the priority contest was being fought out.

This concept of conditional claiming has been directly endorsed by the three patent law associations in Texas and by the Chicago and the Milwaukee patent law associations, and numerous others have endorsed portions of the principles that are involved without naming the Yarborough-Tower concept of the conditional claiming. We favor the amendment of the ABA bill to incorporate into it the conditional claiming of the Yarborough-Tower concept, and we have submitted to Senators Yarborough and Tower a proposed amendment to this end, a copy of which is attached to our statement.

I want at this point to endorse the statement of Mr. Graves who preceded me, with regard to the dangers of the first-to-file system. It isn't generally recognized that there are such great dangers, even though the percentage of interferences that develop under our present system is so small compared with the total number of applications. So I do endorse that statement of his.

I want also to express my agreement with him that it is most gratifying that, due to some moves by the Patent Office and administration officials, and some responsive moves by members of the Bar, it appears that there is definite progress being made toward a meeting with regard to the revision of the patent laws.

I want to say at this point that with regard to the international phase of the proposed patent law revision, Mr. John F. Kincaid, Assistant Secretary of Commerce, in a speech before the American Patent Law Association on January 24, 1968, said :

In my view, the primary goal of any patent law revision should be the improvement of the U.S. patent system with harmonization an important but secondary objective.

With that I certainly agree, and I think our primary job is to improve our own patent system.

I also note in his speech the statement that :

The first draft of the proposed Cooperation Treaty, which has been in progress for some time, was prepared by the United International Bureau for the Protection of Intellectual Property, and would have required harmonization of national patent laws in many important areas. As a result of the efforts of the U.S. delegation to the October meeting in Geneva—that is October 1967—and those of many other delegations, this has been changed. The United International Bureau for the Protection of Intellectual Property is presently revising the initial draft of this proposed treaty to require as little change as possible in the national laws of the prospective member countries consistent with the objectives of the proposed treaty.

Mr. Chairman, that concludes our statement.

Senator McCLELLAN. Thank you very much, Mr. Browning.

Does the gentleman with you wish to make a statement?

Mr. KIRK. No, sir.

Mr. BROWNING. I would like to make one more observation, if I may, Mr. Chairman.

I have here a letter which I received a short while ago from Mr. Herbert Allen, president of the Cameron Iron Works, Inc., which is a Houston-based company dealing with heavy industry and with international interests. This letter was addressed to Mr. John C. Green, project leader for the Patent, Trademark and Copyright Research Institute of the George Washington University, in response to an inquiry in which that institute was conducting a survey relating specifically to the recommendations of the President's Commission. I feel that the statements that Mr. Allen made in this letter would be helpful to the committee, but the question-and-answer form in which it presently appears do not put the questions and answers together. If I could have permission to put the questions and answers together and then furnish it to the committee, I should appreciate it.

Senator McCLELLAN. It may be printed immediately following your testimony.

(The letters referred to follow :)

THE PATENT, TRADEMARK, AND COPYRIGHT RESEARCH INSTITUTE
OF THE GEORGE WASHINGTON UNIVERSITY,
Washington, D.C., November 15, 1967.

Mr. HERBERT ALLEN,
Houston, Tex.

DEAR MR. ALLEN : President Johnson created a Commission on the Patent System whose broad objective was to recommend measures to keep the system abreast of current and foreseeable needs of our society. The Commission deliberated for almost two years before presenting its findings to the President. As you may know, it found that patents play a significant role in the country's economic growth. The Commission noted a number of areas where, in its opinion, departures from current practice would be beneficial. Acceptance and enactment of some of these changes would require legislation.

The Patent, Trademark, and Copyright Research Institute is dedicated to an objective analysis of the patent system and its effects on our economy. Accordingly, this report of the Commission generated a special study by the Institute of the potential effects of those recommendations which appear to be substantial departures from current practice. Specifically, the Institute is seeking *factual* information concerning (1) the patentability of inventions, and (2) the protection of inventor's rights during (a) research, (b) development, (c) testing, (d) experimental marketing, and (e) commercial production under the present system and after the inclusion of certain major recommendations offered by the Commission.

The enclosed questionnaire has been designed to supply information on the practical results expected by those for whose benefit the report of the President's Commission has been drafted. The questionnaire is accordingly being sent to wide and divergent circles of interested persons and bodies. Evaluation of the answers to it should provide important conclusions on the way in which future technological progress will be influenced.

We believe that little time will be required for answering the questions. They concern matters of immediate interest and frequent occupation, but every answer given is sure to affect the overall picture that will emerge from this important research project. Your cooperation is, therefore, essential. Please return the completed questionnaire at your very earliest convenience.

If you wish to obtain a full copy of the Presidential Commission's report, please write to Mr. Gerald J. Mossinghoff, Head of the Office of Legislative Planning, c/o Commissioner of Patents, Washington, D.C. 20231. The Patent Office has signified its readiness to supply such copies on demand. Will you please refer to this questionnaire in any request you may make for copies of the report.

Sincerely,

JOHN C. GREEN,
Project Leader.

[Questionnaire enclosed.]

CAMERON IRON WORKS, INC.
Houston, Tex., December 20, 1967.

MR. JOHN C. GREEN,
Project Leader, the Patent, Trademark, and Copyright Research Institute of the George Washington University, Washington, D.C.

DEAR MR. GREEN: In compliance with your request, I am enclosing the completed questionnaire.

To the contrary of your suggestion, answering the questions considerable thought and investigation. This accounts for my somewhat tardy response.

Even though you addressed your letter to me personally, I have answered it on behalf of Cameron Iron Works, Inc. since I have no concern with patent matters apart from the Company.

Reports of imminent, drastic change in the U.S. Patent System emanating from Washington earlier in the year disturbed me greatly, and I am very relieved to have evidence of conscientious objective study of the matter. This program seems extremely important to me, and my Company will cooperate fully in any effort to solve problems related to the Patent System.

Sincerely,

H. ALLEN.

[Enclosure.]

1. RECOMMENDATION I) : REDEFINITION OF PRIOR ART TO INCLUDE PUBLIC INFORMATION AVAILABLE ANYWHERE IN THE WORLD; AWARD OF PATENT TO FIRST TO FILE¹

"Prior art shall comprise any information, known to the public, or made available to the public by means of disclosure in tangible form or by use or placing on sale, anywhere in the world, prior to the effective filing date of the application.

"A disclosure in a U.S. patent or published complete application shall constitute prior art as of its effective (United States or foreign) filing date."

This recommendation has three significant components which are listed below. Will you respond to each.

1. Patent is granted to first to file.¹

¹ Abolition of Interference Proceedings. See paragraph (a), bottom of page five of The Report of the President's Commission on the Patent System. Also note references to "prior art" in recommendation XI, and XV.

2. Present grace period would no longer exist.

3. World wide public information becomes a reference—this includes “on sale” or “use”.

If any of the three components is enacted, will you change your method of operation in your fields of technology? Yes—No—, Please explain.

1. (RECOMMENDATION I)

1. *Patent is granted to first to file*

Yes, this would change our method of operation in our field of technology.

We are much opposed to this recommendation. Almost invariably when a problem arises in our development of a product, we consider several solutions before selecting the most desirable. Proper evaluation nearly always involves some degree of disclosure to others outside our company and of publication. In most cases we do this without filing a patent application until the most desirable solution has been determined, and our application when filed is directed to the most desirable. Under the first-to-file system it would be necessary, before disclosing each possible solution to others, to file an application disclosing it sufficiently to bar others and preserve our own right to a patent. This would delay our research and be quite expensive because it would require our researchers to spend an inordinate amount of time disclosing each possible solution to patent counsel and going over drafts of applications to make sure that the disclosures therein are sufficient. Also, it would add greatly to our patent expense by requiring the additional time and work in preparation of applications by patent counsel. Our people very conservatively estimate that we would be required to file at least three patent applications for each one we now file, and often the number would be *much* greater.

2. *Present grace period would no longer exist*

Yes, this would also change our method of operation. We are opposed to the elimination of this so-called grace period. It is not only for the benefit of the applicant. It makes it possible for the applicant or inventor to conduct extensive tests and even much public use thus to achieve perfection of his invention before having to disclose it in a patent application so that when the patent issues, the public gets a disclosure of a perfected invention, not a lot of untried ideas. Eliminating the grace period would make it even more imperative to file applications without waiting to experiment so as to prevent a wrongful or accidental third party publication or public use taking place before the filing. The solutions may be evolutionary in development and such circumstances could well force us to file a whole series of preliminary applications covering each facet of a number of solutions as it evolves.

3. *World wide public information becomes a reference—this includes “on sale” or “use”*

Yes, this would change our method also. We are not presently in a position to estimate the full effect of this recommendation. However, at the minimum, this would lay an issued patent open to still one more possible attack as to its validity and hence would make a patent even after having been obtained, potentially less certain and less valuable than under the present law, with no apparent benefit to the public.

2. (RECOMMENDATION II) : SUBSTITUTION OF PRELIMINARY APPLICATIONS FOR THE PRESENT GRACE PERIOD

“A preliminary application may be used to secure a filing date for all features of an invention disclosed therein, if the disclosure subsequently appears in a complete application. Requirements as to form shall be minimal and claims need not be included.

“One or more preliminary applications may be consolidated into one complete application filed within twelve months of the earliest preliminary or foreign application relied on.”

If the above recommendation is enacted, will you change your method of operation in your fields of technology? Yes — No —, Please explain.

II. (RECOMMENDATION II)

Substitution of preliminary applications for the present grace period

Yes, this would change our method of operation. As previously stated, it would be necessary by a most conservative estimate for us to file a minimum of three times as many applications as at present. Furthermore, for such applications to be worthwhile in the sense of being sufficient to provide a priority date for a later application, each would have to be very carefully prepared to make certain that it contained sufficient disclosure for this purpose. This would necessitate its preparation with substantially all of the care and skill required for the preparation of a complete application and hence require the services of a trained patent attorney.

Roughly three types of situations would require the filing of additional preliminary applications. These are:

1. The casual invention which in normal operation would be merely reduced to a written disclosure, explained to and signed by witnesses, and filed away for possible future reference. Inasmuch as such reference would no longer be admissible in proof of priority it would be necessary to file a preliminary application on each one which was considered of sufficient value to keep. These would be preliminary applications on matters on which in many instances not even the complete application would be filed under present practice.

2. In cases in which various solutions were proposed to the same problem without any single generic concept underlying them all. Under present practice a complete application would be filed only on one or a very few such proposals proved upon trial to be the most worthwhile.

3. There would be a chain of applications of the preliminary type necessary to be filed as developments occurred in the course of research of a given proposed solution of a problem. Under present practice usually only one complete application would be filed after the development had gone far enough so that it is believed to be reasonably perfect. If because of the passage of time the present statutory bar threatened to expire before the ultimate practice, the priority date would be preserved by filing first one complete application and then later continuations-in-part bringing in the later developments.

The preliminary applications would in no case serve the same purpose as the "grace period" and would be much more cumbersome and expensive.

3. (RECOMMENDATION V) : SIMPLIFICATION IN FORMALITIES FOR FILING AN APPLICATION

"Either the inventor or assignee may file and sign both the preliminary and complete applications.

"Any application filed by the assignee shall include a declaration of ownership at the time of filing and, prior to publication of the application, shall include a declaration of originality by the inventor and evidence of a recorded specific assignment.

"Every application shall include, at the time of filing, the name of each person believed to have made an inventive contribution.

"Omission of an inventor's name or inclusion of the name of a person not an inventor, without deceptive intent, shall not affect validity, and can be corrected at any time."

If any of the sections quoted above is enacted, will you change your method of operation in your fields of technology? Yes — No —. Please explain.

III. (RECOMMENDATION V)

Simplification in formalities for filing an application

No, this would make little difference in our practice.

4. (RECOMMENDATION VII) : PUBLICATION OF PENDING PATENT APPLICATIONS²

"Publication of a pending application shall occur eighteen to twenty-four months after its earliest effective filing date, or promptly after allowance or appeal, whichever comes first."

If the above recommendation is enacted, will you change your method of operation in your fields of technology? Yes — No —. Please explain.

² See also Recommendation XI.

IV. (RECOMMENDATION VII)

Publication of pending patent applications

No, this would make little difference in our methods of operation in most instances. There are exceptions in those cases in which the sale of a product would not necessarily disclose the invention, in which event we would dislike to have the patent application published until we were assured of getting a patent. Also, in any case the publication might give our competitors a little advantage in determining before issuance of our patent what claims we were asserting. I suspect that this provision would be much more objectionable to companies engaged in carrying out plant processes and the like which could be practiced in secret, in which case the publication of the process would give competitors the power to practice it before the applicant had any assurance of getting a patent.

5. (RECOMMENDATION XI) : PATENT OFFICE CONSIDERATION OF PREVIOUSLY ALLOWED CLAIMS UPON INFORMATION SUBMITTED AFTER PUBLICATION³

"The Patent Office shall consider all patents or publications, the pertinency of which is explained in writing, cited against an application anytime until six months after the publication which gives notice that the application has been allowed or appealed to the Board of Appeals. If the Patent Office, after the citation period, determines that a claim should not be, or have been, allowed, the applicant shall be notified and given an opportunity *ex parte* both to rebut the determination and to narrow the scope of the claim. The identity of the party citing references shall be maintained in confidence.

"Public use proceedings, as at present, may be instituted during the citation period."

If the above recommendation is enacted, will you change your method of operation in your fields of technology? Yes _____ No _____. Please explain.

V. (RECOMMENDATION XI)

Patent Office consideration of previously allowed claims upon information submitted after publication.

No, we would anticipate little change in our operation.

Potentially there might be delay in issuance of our patents as a result of citations after publication. We have no way of foreseeing the total potential effect of this proposal on our operations, but we suspect that it would have little such effect.

6. (RECOMMENDATION XV) : PATENT OFFICE RIGHT TO AMEND OR CANCEL CLAIMS IN ISSUED PATENTS

"The Patent Office, upon receipt of a relatively high fee, shall consider prior art of which it is appraised by a third party, when such prior art is cited and its pertinency explained in writing within a three year period after issuance of the patent. If the Patent Office then determines that a claim should not have been allowed, the patent owner shall be notified and given an opportunity *ex parte* both to rebut the determination and to narrow the scope of the claim. Failure to seek review, or the affirmance of the Patent Office holding, shall result in cancellation of the claim.

"When the validity of a claim is in issue before both the Patent Office and a court, the tribunal where the issue was first presented shall proceed while the other shall suspend consideration, unless the court decides otherwise for good cause.

"Anyone unsuccessfully seeking Patent Office cancellation of claims shall be required to pay the patent owner's reasonable cost of defending such claims, including attorney's fees. The Commissioner shall require an appropriate deposit or bond for this purpose at the start of the action."

If the recommendation is enacted, will you change your method of operation with respect to patents *you may obtain* in the future? Yes _____ No _____. Please explain.

³ This recommendation describes a technique which would be employed if Recommendation I were enacted into law.

VI. (RECOMMENDATION XV)

Patent Office right to amend or cancel claims in issued patents

1. No, this would probably not greatly affect our method of operation with respect to patents we may obtain. Actually, we are not prepared to answer this question with the information we now have because it is not apparent to what degree the proposal would be used if enacted. We suspect that this would not be greatly used, due to the hazards provided against the one petitioning to cancel claims and that it would probably wind up meaning nothing.

If the recommendation is enacted, will you change your method of operation to take advantage of the opportunity to present prior art applicable to *someone else's* issued patent? Yes _____ No _____. Please explain.

2. No, it would probably not change our operation relative to someone else's issued patents. It is conceivable that we might appraise the Patent Office of prior art but it is obvious that the circumstances of each individual case would dictate our decision on the matter. In addition to the obvious deterrents set forth in the recommendation, we would consider as an additional deterrent the fact that submitting such art would be merely seeking review by the same tribunal that had already passed on the claims and, therefore, would be unlikely to succeed.

7. (RECOMMENDATION XVII) : DAMAGES FOR INFRINGEMENT PRIOR TO PATENT ISSUANCE

"For infringement of a claim which appears in both an application as initially published and in the issued patent, damages may be obtained for an interim period prior to issuance. Such period shall be measured from after the occurrence of all of the following events: (1) the initial publication, (2) a Patent Office holding that the claim is allowable, and (3) a transmittal to the alleged infringer of actual notice reasonably indicating how his particular acts are considered to infringe the claim.

"The applicant's election to create such interim liability, by his transmittal of notice, shall constitute the granting of a reasonable royalty, nonexclusive license, (1) extending only until the issuance of the patent for any infringement involving a process, and (2) extending to and beyond issuance for any infringement involving a machine, manufacture or composition of matter, which is made prior to the issuance of the patent.

"In exceptional cases, damages for interim infringement up to treble reasonable royalties may be assessed."

If the above recommendation is enacted, will you change your method of operation in your fields of technology? Yes _____ No _____. Please explain.

VII. (RECOMMENDATION XVIII)

Damages for infringement prior to patent issuance

Yes, this could change our method of operation because a mere notice of infringement initiates a controversy which could greatly damage the prospects of an accused product. The adverse effects of such notice would probably be less if under the law the giving of such notice would give the accused the right to file a declaratory action. At present I believe I would oppose any proposal for damage for infringement of a patent prior to its issuance.

8. (RECOMMENDATION XVIII) : EXTENSION OF THE TERM OF A PATENT

"The term of a patent shall expire twenty years after its earliest effective U.S. filing date."

If the above recommendation is enacted will you change your method of operation in your fields of technology? Yes _____ No _____. Please explain.

VIII. (RECOMMENDATION XVIII)

Extension of the term of a patent

No, this would have no foreseeable effect on our method of operation since our company has never indulged in delaying tactics.

9. (RECOMMENDATIONS XXXIII, XXXIV, AND XXXV) ⁴: TO TAKE STEPS TOWARD
A UNIVERSAL PATENT SYSTEM

XXXIII.—“The United States should take a position in favor of the proposed revision of the Paris Convention whereby a right of priority may be based on an application for an inventor’s certificate.”

XXXIV.—“Efforts should be made to have the Paris Convention modified to remove any obstacle to measuring the term of a patent from an effective foreign filing date.”

XXXV.—“The Commission believes that the ultimate goal in the protection of inventions should be the establishment of a universal patent, respected throughout the world, issued in the light of, and inventive over, all of the prior art of the world, and obtained quickly and inexpensively on a single application, but only in return for a genuine contribution to the progress of the useful arts.

“To this end the Commission specifically recommends the pursuit of: (1) International harmonization of patent practice, (2) the formation of regional patent system groups, and (3) a universal network of mechanized information storage and retrieval systems.”

If you are concerned with filing abroad:

A. What are your major problems today?

B. Will the recommended steps divested to the goal of a universal patent system reduce, increase, or not affect them? Please explain.

IX. (RECOMMENDATION XXXIII)

To take steps toward a universal patent system

1. Although we frequently file patent applications abroad, we have not classified any problems associated with such filing as major.

2. We oppose many of the recommended steps because of their effect on our domestic patent problems rather than their effect on problems associated with filing abroad per se. Our experience has convinced us that the patent system of the United States is in general superior to other countries in which we file patent applications. We think these recommendations tend to require the United States to adopt many undesirable facets of foreign patent systems. Any steps toward a universal patent system which damage our present system are not likely to be effective in attaining the rather remote goal of a universal patent system.

The report of the President’s Commission stresses the disadvantages of long pendency of patent applications. It states that a primary goal of the proposals is to reduce this period of pendency. However, the report does not go into any particular detail in comparing the number of applications handled by the examiners in various countries in a given period of time or to the number of examiners in comparison to the populations of the various countries.

In our experience most of the lengthy negotiation between the examiners and attorneys soliciting patent applications arises over the question of patentability. None of the Commission’s recommendations is directed to facilitating the resolution of patentability questions.

In particular, Section 103 of Title 35 presently requires an examiner, who is without skill in a given art, to imagine a hypothetical person having ordinary skill in the art and to speculate as to what might have been obvious to this imaginary person at the time the invention was made. As laymen, we find it very difficult to see a parallel between the person having ordinary skill in the art and the reasonable and prudent person mentioned in other legal tests although this parallel is frequently drawn. Anyone under sufficient duress can be reasonable and prudent, but no one without ordinary skill in the art can really put himself in the shoes of a man having ordinary skill in an art.

For the foregoing reasons and others, we suspect that the most productive areas in which to seek improvement of the patent system in the United States lie in increasing the number of examiners and raising their level of skill in their arts and in improving the mechanism by which we determine patentability.

We believe, generally, that enactment as a whole of these recommendations would have a substantial inflationary effect on the economy of the country as a result of increasing development costs.

⁴ These three recommendations have been grouped since their joint purpose is to move toward the ultimate goal of a universal patent system.

Examination of the Patent Office Gazette confirms that most patents cover inventions which cannot be exploited and kept secret at the same time. This supports the position that the primary function of any patent system is to provide an attractive climate for private capital in this type of development. The success in this regard of the United States system is a measure of its merit and makes it logical for others to move in our direction rather than for us to change in the direction of less successful systems.

Careful study of complex social structures shows progress best served generally by intense effort applied in restricted areas of the structure. The Commission has advanced *no reason* for substituting a revolutionary process of changing the patent law for a normal evolutionary one other than that of moving toward universal patenting. We strongly favor the evolutionary approach, with amendments of present law only in problem areas rather than replacing present law with an entirely new law based on such radically different concepts as "first to file" and "no grace period". The Commission further assumes that the recommendations will alleviate some of the problems enumerated. We believe they will aggravate matters, particularly as regards to average time of pendency.

The very success of the patent system in drawing venture capital into development work obviously increases the number of patentable inventions and as a consequence, the number of applications to be processed by the Patent Office. This immediately raises the question of how the ratio of Patent Office personnel numbers to gross national product compares with that of other nations, or even more to the point, how the ratio of Patent Office budget to the *rate of growth* of gross national product compares to that of other countries.

No consideration of the effects of enactment of such proposals should overlook the independent inventor. I have noted repeatedly in this document the greatly increased costs to Cameron under these proposals. This would be far more serious to a smaller company and might be prohibitory to an individual independent inventor.

(The prepared statement of Mr. Browning follows:)

STATEMENT CONCERNING S. 1042, S. 2164 AND S. 2597, 90TH CONGRESS BY RALPH R. BROWNING, IN BEHALF OF HOUSTON PATENT LAW ASSOCIATION, BEFORE THE SUBCOMMITTEE ON PATENTS, TRADEMARKS, AND COPYRIGHTS OF THE SENATE COMMITTEE ON THE JUDICIARY, JANUARY 31, 1968

I am Ralph R. Browning of Houston, Texas, appearing in behalf of the Houston Patent Law Association, of which I am the immediate past president.

The Houston Patent Law Association is made up of some 85 active patent lawyers practicing in corporate patent departments, in Government organizations such as NASA, and as associates and partners in private patent and general law firms. Those in the patent and general law firms represent all types of patent clients ranging from many individual inventors, through small corporation up to and including large national corporations. The Association as such has throughout its existence been intensely interested in preserving and improving the United States patent system.

As for myself, I have been exclusively engaged in patent and related work since 1927. This includes between two and three years as a member of the Examining Corps of the Patent Office, a similar period of time in the Patent Department of a large corporation and the remainder of the time in private practice of patent and related law. For some thirty years I have been located in Houston and since 1948 have been a partner in a private patent law firm whose clientele is fairly balanced between individual inventors and corporations having annual business volume of up to five million dollars, plus a few larger national corporations.

The Houston Patent Law Association favors and supports the Yarborough-Tower bill S. 2164 as the best way of dealing with what were designated by the President's Commission as major problem areas under the present law. It strongly opposes S. 1042 but favors and will support S. 2597 if amended to incorporate the conditional claiming features of S. 2164. It also favors such further amendments of S. 2594 as may be necessary to incorporate fully the other features of S. 2164 insofar as they do not already appear therein.

THE THEME OF PRINCIPLE UNDERLYING THE HOUSTON PATENT LAW
ASSOCIATION POSITION

HPLA agrees with the observations made by the President's Commission and by the President to the effect that the United States patent system has served long and well and has indeed been a factor of no mean importance in the achievement by the United States of its place of unquestioned leadership in technological development. That the patent system should be continuously under examination for a determination of ways in which it might be improved in order to improve its service to the nation in fostering technological development is considered unquestionable. However, in the light of the fact that the system has served so outstandingly its intended purpose up to the present time we advocate the approach which would build upon that which has proven successful by making only those changes which seem both essential and reasonably likely to successfully deal with problems in the system as they appear from time to time, rather than by the resort to major surgery such as the complete repeal of the patent laws as we have them now and their replacement with an entirely new set of patent laws based upon quite different major features, at least some of which have been tried either in this country or abroad and found wanting.

It is in this spirit and for this reason that the Houston Patent Law Association proposed and now supports S. 2164 as an amendment to the present law which has a long history of success, with a view of curing a few of what the President's Commission believed to be existing or developing problem areas.

HPLA in this context also supports Dirksen S. 2597 if amended to incorporate the conditional claiming and other features of the Yarborough-Tower bill. Dirksen largely preserves the major features of our patent system as it has been successful in the past and brings in certain innovations calculated to improve the system. The proposed amendments would serve to further the improvements which S. 2597 would enact by incorporating the conditional claiming of the Yarborough-Tower bill along with the other improvements already in the Dirksen bill.

By the same token, HPLA opposes most strongly S. 1042 as a proposal which would destroy the major values of the present system and institute instead a system employing major principles heretofore used, if at all, only in countries which have been unable to approach the scientific development pace set by the United States.

The Yarborough-Tower bill S. 2164 originated with our Association and was the culmination of more than a year and a half of work by a special committee appointed in 1965 with the duty of considering proposed patent law revision and promoting constructive measures. It has met weekly since that time. S. 2164 came after many drafts and redrafts and the consideration of many ideas. Included was a study of the present law and a report thereon by this committee that was submitted by HPLA to the President's Commission. This report largely approved the present law, but contained some recommendations for improvement including a trial section in the Court of Customs and Patent Appeals and provision for applications by assignees (copy of report of September 16, 1966 attached). It also studied the President's Commission Report and issued a detailed report on this study in which it strongly disapproved the radical changes such as the first to file, the no grace period, and others and in an appendix proposed a conditional claiming system which is part of S. 2164 (copy of report dated March 28, 1967 attached).

THE PRESIDENT'S COMMISSION REPORT AND S. 1042

The detailed report on the HPLA special committee study of the President's Commission Report and recommendations dated March 28, 1967 is attached hereto and having been approved by the Association as a whole, represents the views of the Association. Since S. 1042 tracks the President's Commission Report in such major aspects as the adoption of the first to file system and the abolishment of the grace period, this report represents the position of the HPLA on S. 1042 and will not be repeated here in detail. It is sufficient to say that it concludes that such major recommendations of the President's Commission which would radically alter the patent system from its previous nature have been found highly objectionable and that the HPLA for this reason strongly opposes S. 1042.

This bill is aimed primarily at what are ostensibly the greatest underlying reasons for the proposed rewriting of the patent laws as set forth in S. 1042, namely, the earlier issuance of patents, the earlier publication of new technology contained in patent applications, reducing the load on the Patent Office and greater uniformity of decisions on patentability. It differs in its approach from S. 1042 in that instead of changing the underlying nature and philosophy of the patent system by adoption of the first to file rule instead of the first inventor rule, the abolition of the one year so-called grace period after publication for allowing an inventor to bring his invention to perfection, and other radical changes, this bill approaches the problem by retaining and preserving the present benefits to a U.S. patent applicant and patentee while changing only those portions necessary to avoid or minimize the delays.

This bill is not a rewriting of the patent laws, but an amendment of the existing statute.

In an effort to save the present law, since it was believed basically sound, the HPLA special committee reviewed the stated *objectives* of the President's Commission and found that they could best be reached by a few simple amendments to the present law. These are embodied in the Yarborough-Tower bill.

Primarily this bill avoids all delays in issue of patents by requiring:

(1) Examination and re-examination of applications in order of effective filing date rather than in order of date of last amendment as under old practice or according to request of applicants as currently sought.

(2) Issue of patents without delay for appeal or interference (appealed claims and junior party's claims being conditional).

Since there is no delay for any cause, patent terms run from issue date as at present, except there is a guaranteed minimum of ten years for conditional claims activated by winning appeal or interference.

The bill stimulates prompt filing by giving the senior party a patent with unconditional claims, subject to cancellation if he loses a priority contest. This coupled with prompt issue of patents, *assures early disclosure of technology*. Publication prior to issue is therefore unnecessary.

This bill reduces the number of applications to be examined by:

(1) Encouraging dedication of applications with reduced pre-publication fee, while preserving right of interference.

(2) Allowing joinder of related or similar inventions in one application without regard to whether inventions were made by the same persons.

The backlog is thereby eliminated and applications issued promptly.

By reducing the backlog, *quality is improved, which in turn reduces litigation cost.*

Filing by foreigners is facilitated by allowing filing by assignees, in *harmony with foreign practice*, but with requirement for an oath on information and belief and a further requirement of proof of title.

The following remarks are pertinent to the specific provisions of S. 2164:

Proposed Section 123 enables two or more inventors working on a single project to file but a single patent application thereon. Present practice often requires several applications, one to cover the joint inventions and additional applications for the separate inventions of each inventor. Under present practice, not only is the number of applications often needlessly multiplied but serious questions of validity arise when the separate and joint inventions are not patentable one over the other or when the facts are obscure as to which one or ones of the several inventors made a particular contribution to the overall project. The new section eliminates such problems. Present practice allows a plurality of similar inventions, e.g. different species of a common genus, and also a plurality of related inventions, e.g. inventions that can be utilized together, to be claimed in one application if they are all made by the same inventive entity. The new section extends the practice so that it becomes immaterial whether or not all of the named applicants contributed jointly to each or any of the claimed inventions. The new section would also permit a question of priority as to substantially the same invention made by several different inventors to be resolved amicably by permitting all of those claiming inventorship to joint in one application if they so desire. The proposed Section 123 is considerably broader than Section 116(b) of S. 1042, which implies that at least some of the inventions claimed must be joint inventions before a joint application can be filed. Proposed Section 123 is believed to be more effective in achieving the desired objective of eliminating a needless and legally precarious multiplicity of applications.

Proposed Section 124 would permit an assignee of an invention to file an application for patent thereon. In this it is similar to part of Section 111 of S. 1042, but goes somewhat further in that it permits the assignee, on information and belief, to make the oath of inventorship by the inventor whereas S. 1042 requires an oath by the inventor, which could render unusable the assignee's supposed right to file. Both acts would require the assignee to show at least *prima facie* legal or equitable ownership before getting a patent.

Proposed Section 136, unlike S. 1042, would not eliminate or restrict continuation applications which are frequently necessary in order to assure that an applicant can meet all the requirements of the Patent Office and secure the fullest protection to which he is entitled, but which have sometimes been used to delay issuance. It provides instead that such continuation applications shall be acted upon in the order of their earliest effective filing dates, which would mean that under the present procedures and status of the Patent Office work they would receive action in a matter of weeks after filing, thus avoiding any substantial delay.

Proposed Sections 155, 156 and 157 would eliminate delays in publication and issuance of patents pending appeals and interferences. It would not do this, as would S. 1042, by arbitrarily publishing applications, possibly even before action by the Patent Office and regardless of whether or not a patent is ever granted nor by making appeals almost impossible to win by making a Patent Office decision against patentability irreversible unless without substantial basis or not in accordance with law, nor by abolishing the right of a later to file first inventor to prove the same in an interference. Instead it would simply have the patent issue without waiting for the outcome of an appeal or an interference, the claims appealed or subject to priority contest being included but ineffective as to all except the first to file, until won on appeal or in a priority contest, would be effective from then until the patent would normally expire or for ten years, whichever is longer.

Proposed Section 158 would eliminate the load on the Patent Office of examining thousands of applications on which the applicants do not desire patents but merely wish to have a defense against later applicants getting patents. It would not do this by deferred examination as would S. 1042, which would merely prolong pendency of applications by a period up to five years during which the public would be held in fear by uncertainty whether or what scope patent might eventually issue thereon. Instead, for a fee equal to the issue fee only, it would immediately issue a nonexamined patent dedicated to the public, which would give the patentee only the right to contest in interference the right of a later inventor to receive a patent thereon.

S. 2597—THE DIRKSEN BILL

This bill incorporates as many of the recommendations of the President's Commission as the American Bar Association felt were either desirable, unobjectionable, or tolerable, recognizing the administration's particular interest in executive and administrative matters connected with the patent system.

In addition, the Dirksen bill solves the problem of conflict of law arising from the dual routes of appeal from the Patent Office currently permitted. It does this not by placing the U.S. Court of Appeals of the District of Columbia over the Court of Customs and Patent Appeals but instead by rerouting trials *de novo* from the D.C. District Court to a trial section of the CCPA. This accords with HPLA's view expressed in its aforementioned 1966 report. This eliminates the added appellate step proposed by the President's Commission, thereby *reducing the cost of patent prosecution*.

The Dirksen bill incorporates to a greater or lesser degree five of seven principles incorporated in the Yarborough-Tower bill, as follows:

- (1) Filing by assignee (Sec. 111).
- (2) Joinder of sole inventions in one application (Sec. 116(b)).
- (3) Orderly examination in accordance with filing date (Sec. 131).
- (4) Permissive publication (e.g. for dedication of defensive or Government owned applications (Sec. 123)).
- (5) Preference to first to file (interim liability of published allowed claims) without total abolition of rights of first inventor (Sec. 271(f)).

The HPLA is drafting an amendment, to the ABA bill, which it feels would clarify, expand, and improve the language of the ABA bill on the above five points. As soon as possible this amendment will be submitted.

The ABA bill does not incorporate the Yarborough-Tower conditional claiming system. Therefore the ABA bill does not effect prompt issue of patents without delay for appeal or interference. HPLA prefers that the conditional claiming system be incorporated into the ABA bill and has submitted to Senators Yarborough and Tower a draft of an amendment for that purpose, which may be called the "Conditional Claiming" amendment, with the request that they submit it as an amendment, to the Dirksen bill. This amendment is attached along with the forwarding letter of January 22, 1968, to Senators Tower and Yarborough.

In the context of the patent term running from filing date as provided by the Dirksen bill, it is more equitable to applicants to issue their patents without delay for interference or appeal. In addition, it is desirable that technology disclosed by the applications of appellants and junior applicants be published without delay, and the public not be kept in the dark about claims on appeal or the junior party's allowed claims to non-interfering subject matter. HPLA's "Conditional Claiming" amendment achieves the desired result.

The ABA bill substitutes oppositions and cancellations for current interferences. This eliminates the need for going through a long motion period to set up the "counts" defining the common inventive subject matter of the two parties. Instead, each party establishes the date of invention of his own claims and the other party establishes his own work as part of the prior art relative to which patentability of the first party's claims is determined.

The HPLA conditional claiming system is well adapted to the above procedure for determining priority, better than the ABA system wherein junior party's and appellant's claims are not allowed or published.

If the "Conditional Claiming" amendment seems long, it may be helpful to summarize the nature of its provisions.

- (1) It issues the patents without delay for appeal or interference.
- (2) It provides rules for determining priority.
- (3) It specifies interim rights and rules as to conditional claims.
- (4) It specifies when conditional claims are to be cancelled.
- (5) It specifies what happens when conditional claims become unconditional through winning appeal or interference.

MYTHS RELATIVE TO THE REFORM ACT (S. 1042)

1. *First to file gets patent*

The truth is that the second to file is denied a patent even if he is first inventor. But first to file does not get a patent if first inventor can prove prior knowledge.

2. *Abolition of grace period harmonizes with foreign patent law*

The truth is that two other world powers have a grace period after public use by the inventor, namely, Germany and Britain. Canada and the Philippines also have a grace period after public use by anyone.

Many countries disregard publications not reaching their country.

In addition, many countries, especially in South America, provide for re-validation patents despite publication of invention, so long as the invention has not gone into use in their country.

3. *The Reform Act abolishes interferences*

The truth is that the reform act merely requires inventors (at great expense) to file their evidence of conception in the Patent Office in the form of preliminary applications. It will still be necessary to compare complete applications with preliminary ones to establish priority dates, and applicants can still jockey for position relative to claims that read on their preliminary applications and not on their opponents. In addition, junior applicants will oppose senior applicants' applications on the ground of prior knowledge.

4. *The Reform Act reduces cost of patent prosecution*

Actually, the cost of recording conception data by filing a preliminary application on every idea that might pan out would be staggering. This burden is imposed on all applicants, not just the 1 percent who become involved in priority contests. Even as to the one percent, the cost of multiple preliminary applications will balance out any saving in taking testimony as presently required.

5. *Disclosure is accelerated by publication of unexamined applications*

Prior to examination an applicant is in a poor position to judge the likelihood of his being granted a patent. At least some inventions will therefore be practiced as trade secrets if patent applications are published prior to examination.

6. *The Reform Act reduces cost of litigation*

Actually, the introduction of civil commissioners will add one more step to the already intricate trial procedure. Just when the commissioner is getting familiar with a case he passes out of the picture and the parties must go over the same ground once again with the trial judge. This should increase considerably the cost of trials.

CONCLUSION

The desirable legislation is the ABA bill as modified to fully incorporate the provisions of the Yarborough-Tower bill.

THE PRESIDENTIAL COMMISSION AND THE RETURN TO THE PATENT ACT OF 1793

(By Paul H. Blaustein, of the New York Bar)

(Note.—Mr. Blaustein examines the history of the United States patent laws and states that the recommendations of the President's Commission on the Patent System for a first-to-file system are actually regressions to the severe laws that existed under the Patent Act of 1793. He says that there is no reason so to change our present patent laws.)

The distinguished members of the President's Commission on the Patent System and their chairman, Simon H. Rifkind, have devised an entirely different patent system intended to be simpler and better able to promote the progress of the useful arts.¹ The simplicity desired is not without substantial new burdens and penalties imposed on United States inventors.

The commission made its recommendations in an attempt to conform our patent laws to the conditions imposed by an "exploding technology" and to make the patent system applicable to "modern day requirements". Yet, it is curious to observe that the changes recommended are actually regressions to the United States patent law that existed from 1793 to 1839 under the Patent Act of 1793, a law regarded as being especially severe.

The structure of the recommended system depends upon the foundation provision, Recommendation I, which requires an inventor to file a patent application before there is any public disclosure or use of his invention. In the present system, the date of the invention for priority and validity purposes is the date the invention was made; a grace period of one year, akin to a statute of limitations, also is allowed after the first publication or public use for filing a patent application. The commission recommends a "first-to-file" system, under which the winner in the race to the Patent Office is deemed the first inventor as a matter of law.

THE BASIC DIFFERENCES

Recommendation I reads as follows:

"Prior art shall comprise any information known to the public or made available to the public * * * by use or placing on sale, anywhere in the world, prior to the effective filing date of the application."

The present statute, 35 U.S.C. § 102(b) (1952), reads:

"A person shall be entitled to a patent unless—

"* * *, (b) the invention was * * * in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or * * *"

Two points of difference are clear: (1) Public uses outside the United States are included as prior art; and (2) the grace period of one year is eliminated.

A third important difference is implied: The present experimental use exception to public use is eliminated.

In a closely related recommendation, the commission further contemplates a new preliminary application to be followed within twelve months by the complete application.²

¹ REPORT OF THE PRESIDENT'S COMMISSION ON THE PATENT SYSTEM (1966) (hereafter referred to as REPORT).

² "II. A preliminary application may be used to secure a filing date for all features of an invention disclosed therein, if the disclosure subsequently appears in a complete application. Requirements as to form shall be minimal and claims need not be included.

"One or more preliminary applications may be consolidated into one complete application filed within twelve months of the earlier preliminary or foreign application relied on."

THE REASONING OF THE COMMISSION

The advantages the commission believes will be derived from the proposed first-to-file system are, generally speaking, greater international uniformity of patent systems and expedited examination procedure in the United States.

The specific advantages are the following:

1. *International Applicability*—

(A) Greater international uniformity would be achieved, since the present grace period has no counterpart in most foreign systems.

(B) The anomaly of excluding from prior art, public knowledge, use or sale in a border town of Mexico or Canada, and including the same kind of disclosure in Alaska or Hawaii, would be eliminated.

(C) The granting of valid United States patents on inventions which would be unpatentable abroad because of long use or sale there would be prevented.

(D) Another step toward conformity with European patent laws and acceptance of a common definition of universal prior art would be taken.

2. *Expedited United States Examination*—

(A) Interference procedure in the United States Patent Office would be eliminated.

(B) The examination procedure would be accelerated by eliminating the consideration of affidavits at present submitted to establish an earlier date of invention and thus overcome *prima facie* prior art.

(C) The applicant no longer would need to maintain extensive records now required to corroborate such affidavits or, thereafter, to prove his actual date of invention.

In the face of these advantages, a brief review of the history of the patent laws during the period from 1793 to 1839 and the reasons for the rejection of the 1793 statute will be helpful.

CONGRESSIONAL REJECTION OF THE ACT OF 1793

Section 1 of the original Patent Act of 1790 provided:

"§ 1. . . . That upon the petition of any person or persons . . . that he, she, or they hath or have invented or discovered any useful art, manufacture, engine, machine, or device, or any improvement therein *not before known or used*, and praying that a patent may be granted therefor, it shall . . ."

The first statute was ambiguous as to whether the invalidating use was before the date the invention was made or before the date that the patent application was filed. In 1793, Congress eliminated the ambiguity by making the invalidating use before the application date.³

Recommendation I of the commission may be compared with the Patent Act of 1793, which provided:

"§ 1. . . . That when any person or persons, . . . have invented any new and useful art, . . . *not known or used before the application*, and shall present a petition to the Secretary of State. . . ."

This act worked against the interest of the public and the inventor, as stated in Robinson's treatise on the *Law of Patents* (page 486):

"In its earlier stages the law both in England and in this country was in this respect especially severe. The statute of James I. allowed the grant of letters-patent only for inventions which others, at the date of such letters-patent, did not use; and under this provision the courts held that a single instance of such use by any person other than the inventor in a public manner, was sufficient to debar him from a patent. In the United States, the act of 1793 required that the invention should not have been used before the application, and this our courts construed as prohibiting a public use by the consent of the inventor, and decided that his acquiescence in the enjoyment of his invention by the public, whatever might be its duration or extent, was equivalent to an abandonment.

³ "It is not wholly insignificant in this point of view, that the first patent act passed by congress on this subject, (act of 1790, ch. 34, ch. 7.) which the present act repeals, uses the words '*not known or used before*,' without adding the words 'the application'; and in connexion with the structure of the sentence in which they stand, might have been referred either to the time of the invention, or of the application. The addition of the latter words in the patent act of 1793, must, therefore, have been introduced, ex industria, and with the cautious intention to clear away a doubt, and fix the original and deliberate meaning of the legislature." *Pennock v. Dialogue*, 2 Pet. 1, 21-22 (1829).

So strict a rule was necessarily disadvantageous to inventors and indirectly prejudicial to the public."

After the Patent Act of 1793, successive patent acts looked upon the inventor with greater favor. The Patent Act of 1836 excluded unauthorized use from invalidating the patent:

"§ 6. . . . That any person or persons, having discovered or invented any new and useful art, . . . and not, at the time of his application for a patent, *in public use or on sale, with his consent or allowance*. . . ."

The Patent Act of 1839, which was similar to the present patent law, provided:

"§ 7. . . . no patent shall be held to be invalid, by reason of such purchase, sale, or use prior to the application for a patent as aforesaid, except on proof . . . *that such purchase, sale or prior use has been for more than two years prior to such application for a patent*." ⁴

The Acts of both 1836 and of 1839 were intended to assist inventors:

"The act of 1836 was evidently intended for the benefit of the inventors, and was the offspring of a public sentiment in their favor which increased rather than diminished during the ensuing forty years. In less than three years afterward the act of 1839 was passed, every other provision of which was marked by the same liberal spirit toward inventors, and was manifestly designed for the furtherance of their interests." ⁵

A return to the first-to-file system will be an abandonment of the liberal spirit developed in the Act of 1839 and will be accompanied by burdens, injustices and impracticalities.

WORLD-WIDE PUBLIC USE AND PRIOR ART

The geographic expansion of public use will greatly expand the field of prior art. Any public use, whether in Mexico, to take the example used by the commission, or in China or South Africa would be available to invalidate a patent.

Patents of certain foreign countries hardly enrich our technology, yet are part of the prior art. For example, the tubeless tire patent was held invalid because of a prior South African patent (*Goodrich v. United States Rubber Company*, 244 F. 2d 468 (4th Cir. 1957)). Foreign public uses are virtually unknown in the United States and will not enrich United States technology at all. Is it fair to the American inventor to charge him with knowledge of these uses, which are utterly beyond his means to learn?

Judge Rifkind noted some time ago the difficulties facing the United States inventor in fighting the wide scope of world-wide prior art, which he termed a "paper-and-paste doll":

"Unlike another fictional character of the law, the Reasonably Prudent Man, this character, whom I call Mr. Prior Art, is not the product of intuition and changing modes and judgment. He is a paper and paste man, carefully put together by industrious lawyers making vigilant searches into dusty archives of the Patent Office, the libraries and the workshops. No matter how brilliant be the flesh and blood inventor who comes into court with his patent, he may be utterly undone by this paper and paste doll. Someone, somewhere, some time may have had the insight and diligence to put on paper the words which foreshadowed the product of the inventive genius. And who can fail to sense frustration when the trophy is thus snatched from the inventor's hands?" ⁶

Further, the expansion will increase the cost and uncertainty of litigation to the extent that world-wide investigations for public uses will be made, investigations which could only be afforded by those of substantial financial means.

It will only add to the difficulty of the United States Patent Office both in uncovering world-wide public uses and in adjudicating the worthiness of the proof of a foreign public use in an opposition procedure. The same difficulty will be presented to the courts in litigation.

⁴ ROBINSON, LAW OF PATENTS 504 (1890). "The evident purpose of the section was to fix a period of limitation which should be certain, and require only a calculation of time, and should not depend upon the uncertain question of whether the applicant had consented to or allowed the sale or use."

⁵ ROBINSON, LAW OF PATENTS 506 (1890).

⁶ Rifkind, *Romance Discoverable in Patent Cases*, 16 F.R.D. 253, 257 (1954).

THE GRACE PERIOD AND EXPERIMENTAL USE

An experimental use probably would be considered a public use, part of the prior art, unless it is under absolute secrecy. This follows from the commission's carefully worded definition of prior art, which overrules the landmark case, *Elizabeth v. Pavement Company*, 97 U.S. 126 (1877). Here, the Supreme Court stated that experimental uses were not public uses and that prior art does not include information made available to the public by such use:

"In this connection, it is proper to make another remark. It is not a public knowledge of his invention that precludes the inventor from obtaining a patent for it, but a public use or sale of it. In England, formerly, as well as under our Patent Act of 1793, if an inventor did not keep his invention secret, if a knowledge of it became public before his application for a patent, he could not obtain one. To be patentable, an invention must not have been known or used before the application; but this has not been the law of this country since the passage of the act of 1836, and it has been very much qualified in England. *Lewis v. Marling*, 10 B. & C. 22.⁷ Therefore, if it were true that during the whole period in which the pavement was used, the public knew how it was constructed, it would make no difference in the result."

It is seen, therefore, that the basic rule of *Elizabeth*, that knowledge obtained by the public during an experimental use is not prior art, is to be essentially changed, since prior art will comprise information made available to the public by use.

Not every idea is worthy of a patent application. The experimental period and the grace period are designed to allow the inventor the right to discard the unworthy. The late Judge Learned Hand recognized this. In *Aerovox Corporation v. Polymet Manufacturing Corporation*, 67 F. 2d 260, 862 (2d Cir. 1933), he said:

"... At any rate we shall assume that an inventor may wait longer, may wait until he learns whether his invention is of enough value to justify an application for a patent. On this view he may test it, not only to put it into definitive form, but to see whether his ideas are worth exploiting."

Past judicial experience has recognized the wisdom of a liberal interpretation of experimental use; for example, consider the experimentation required on the reaper (*Graham v. McCormick*, 11 Fed. 859, 862-863 (N.D. Ill: 1880)):

"... It could only be tested by practical use in the field, and it was essential that it should be so tested by farmers on their farms. The inventor was then struggling, as inventors often do, to establish the success of his invention. It was necessary that thorough experimental tests should be made, and that he should have the assistance of others in making them; and it is manifest, we think, that the machines of 1863 were not yet so perfected as to be practical machines, capable of successful work."

The commission recognizes that further development of an idea is required before a meaningful invention can be completed and contemplates a provisional disclosure system giving the inventor the right to file a complete disclosure within twelve months.

Under the first-to-file system, a provisional application covering the reaper could not be complete since the invention was not complete; the needed assistance to perfect the reaper would not be sought because of fear of public use and possible stealth by others.

Here again, an analogy may be drawn to the Act of 1836 which allowed the filing of a caveat⁸ to preserve an inventor's rights. The requirements as to form were obviously minimal. However, the caveat procedure was found to lack utility and was subsequently eliminated from United States patent law.

The purpose of the experimental use provision and the grace period is to allow the inventor sufficient time to experiment and perfect his invention and, as a corollary, his application. It discourages paper inventions, sketchy disclosures and incomplete patent applications. It encourages experimentation, field testing under service conditions and efforts to perfect an invention.

⁷ In this leading English case, Lord Tenterden, C.J., said to the jury, "To show that the machine was not new, evidence is given that a model has been seen by three or four persons and that the making of a similar machine was begun, but it appears to me that the defendant has failed to prove that such a machine was generally known or generally used in England before the taking out of the patent by the plaintiff's." The Court of Kings Bench equated "generally known" with "publicly known".

⁸ Act of 1836, § 12, related to the filing of "a caveat, setting forth the design and purpose thereof, and its principal and distinguishing characteristics. . ." Cf. REPORT, Recommendation II: "... Requirements as to form shall be minimal and claims need not be included."

Conversely, the first-to-file system encourages hasty filing with incomplete disclosures on incomplete inventions; it fosters secrecy and fear of enlisting the help of others. It provides a harsh statute of limitations after first public use, namely, zero days. It burdens those who lack means and increases the burden on the nation's corporations. It further requires a diversion of funds for filing patent applications to protect paper disclosures, the only way left to secure protection for the untested invention.

One of the main reasons cited is the desire to reconcile the United States patent system to foreign patent systems. This reason is itself novel, since in the past we tried to devise a system which was better than other systems, particularly when the Acts of 1836 and 1839 were passed. In fact, we succeeded, and many major countries, *e.g.*, West Germany and Japan, emulated us and allowed a public use during a short statutory period before an application is filed. Great Britain, Germany, Belgium, Japan and others have laws similar to present United States law and do not consider world-wide public uses as part of the prior art. International uniformity and co-operation do not require the proposed system.

International conformity and co-operation among national patent offices are desirable goals and in fact exist to a considerable extent now. The present system does not offer any substantial impediment to the achievement of these goals.

It is certainly desirable to expedite and simplify United States examination procedures. No patent lawyer holds any brief for the current interference practice, and it could be substantially modified under the present statutory framework. All of this can be done without adopting the first-to-file system.

The history of the United States patent system is the adoption and rejection of a first-to-file system, followed by Congressional scrutiny and change of the public use provision in response to injustices and a balancing of the inventor's and the public's interest. No compelling reason now exists to give up the benefit of the present law, written in the light of more than 170 years of legislative and judicial experience, to regress to the first-to-file system.

HOUSTON PATENT LAW ASSOCIATION,
Houston, Tex., September 16, 1966.

DR. HARRY HUNTT RANSOM,
*Chairman, President's Commission on the Patent System, U.S. Department of
Commerce Building, Washington, D.C.*

DEAR DR. RANSOM: Enclosed are five copies of a report prepared by a Special Committee appointed by me as President of the Houston Patent Law Association. The Committee's report was approved by the Houston Patent Law Association Board of Governors.

After extensive study, the Special Committee concluded the rights and duties of applicants for patents, patentees, and the Government are adequately defined in the present patent laws; and no major substantive changes are necessary. The reasons are briefly set out in the report under the heading "Maintenance of the Present System".

The Committee does feel, however, the procedure for appeals from the Patent Office could be improved. The Committee favors the ABA Proposal for Unification of Patent Office Appeals. The reasons are set out in the report under the heading "Comments Favoring the ABA Proposal for Unification of Patent Office Appeals".

The Committee has two suggestions (requiring changes in the Patent Office Rules of Practice) which would improve the present patent system. The reasons are set out in the report under the heading "Two Suggestions For Improvement of Present Patent System".

The Committee is strongly opposed to any changes in the patent system which would result in opposition proceedings, cancellation proceedings, or deferred/optional examinations. The reasons for opposing such changes are set out in the report under the headings "Opposition Proceedings to Patent Issuance", "Cancellation Proceedings to Cancel Patent", and "Deferred/Optional Examination".

If the President's Commission would like any further statements from our

Special Committee or the Board of Governors, please do not hesitate to contact me.

Very truly yours,

FRANK S. TROIDL,
President, Houston Patent Law Association.

Enclosures.

MAINTENANCE OF THE PRESENT SYSTEM

The current patent system of the United States should be maintained. While many proposals have been made in recent years for statutory changes, including the importation of untried deferred examination, the Patent Laws have been substantially unchanged, excepting for the increased fees, since the Patent Act of 1952. The increase in fees, in itself, however, has caused and is causing a substantial change in claiming the invention and in the drafting of the specification and drawings. Moreover, the U.S. Patent Office itself, within the statutory framework, has effected many changes in the Patent System among which are:

- (a) compact prosecution.
- (b) interference practice.

These changes, which were made within the statutory provisions, coupled with the changes in claiming and drafting caused by the Fee Bill have, in effect, revitalized the Patent System. Taking these changes with the standards enforced by the Supreme Court in the recent decisions in *Graham et al v. John Deere Company*; *Calmar, Inc. v. Cook Chemical Company*; *Colgate-Palmolive Co. v. Cook Chemical Company*, 148 USPQ 459, with respect to the nonobviousness test and the test for utility, as enunciated in *Brenner v. Manson* 148 USPQ 489, it is respectfully submitted that the present Patent System is not static but rather is dynamic and can change and is changing to suit the demands of these times. The effect of the Fee Bill, the changes made by the Commissioner under his rulemaking power, and the decisions referred to have not been fully felt since sufficient time has not elapsed to determine the full impact thereof. However, it appears at the present writing that a marked improvement may be expected within the foreseeable future as reflected by the Commissioner's report. If statutory changes were made now without a full assessment of the effect of the Fee Bill, the changes in prosecution made by the Commissioner of Patents within the statutory framework, and the Supreme Court decisions *supra*, valuable substantive rights may be forever lost by abandoning a system that has worked well for over 175 years as shown by the record made on the celebration in 1965 of the 175th anniversary of the Patent System. It is submitted that it would be dangerous, at the present time, without further assessment, to experiment by making statutory changes in the Patent Laws of the United States. The Commissioner of Patents and the Courts have ample power within the statutes and the constitutional framework to maintain the present Patent System as a vital, workable system "to promote the progress of . . . the useful arts . . ." while yet securing for inventors their exclusive rights without derogation of the public weal. Hence, it is recommended that substantive changes not be made in the Patent System; and any major substantive changes contemplated should be deferred at least until the effect of the foregoing several factors can be properly evaluated. Until such time, our Patent System, which has demonstrated its worth, should be maintained substantially unchanged.

COMMENTS FAVORING THE ABA PROPOSAL FOR UNIFICATION OF PATENT OFFICE APPEALS

The consolidation of appeals from the Patent Office into a single patent-experienced court in lieu of the present dual appeal routes alternatively available under 5 USC 145 and 146 would produce a uniformity in the law applicable to all reviews of Patent Office actions. Furthermore, the institution of such a patent and trademark oriented court could also enable the selection of judges with special qualifications or, alternatively, would provide a bench well versed in patent and trademark matters regardless of preappointment experience. Since the pool of judges in this court is proposed to be large, these justices could frequently sit by appointment with the various Courts of Appeals, thus lending their expertise, judgment, and education in patent and trademark matters to these panels.

The size of the court would also virtually preclude the danger of a single bias in a long-term majority affecting a repeal or major modification of portions of the law. The large bench would minimize, if not eliminate, the potential danger to independency of judicial action resulting from embarrassment of judges sitting on appeals from their colleagues. Rather, the concurrent trial and appellate responsibility of the bench would provide judges well rounded in both fields of experience.

In short, the court would provide a consonance to the law applicable before the Patent Office while providing for the Circuit Courts and for the Patent Bar generally a source for meaningful and expert guidance in all patent and trademark matters.

TWO SUGGESTIONS FOR IMPROVEMENT OF PRESENT PATENT SYSTEM

(1) Specification of Priority Date of Each Claim in Multiple Priority Cases

The Patent Office, by a new Rule, should require the applicant in a continuation-in-part application to divide the claims into groups according to the date of priority to which they are entitled. The Patent Examiner should check such grouping and require correction if there be error. This will enable the public to judge more easily the effective priority date to which a patent claim is entitled, an important point in deciding upon its validity.

(2) Filing by Assignee When Inventor Is Dead

In case of death of the inventor, the assignee should be allowed to file the application and make any required oath of inventorship. The present practice requires that the assignee seek out the executor or administrator and persuade him to file and execute the oath. In many cases there is no executor or administrator, and in many cases the executor or administrator is slow in cooperating or refuses entirely to do anything. The executor or administrator usually knows less about the facts of inventorship than the assignee and is therefore not the logical person to execute the oath.

OPPOSITION PROCEEDINGS TO PATENT ISSUANCE

This proposal is undesirable because: (1) it could greatly increase the work load of the Patent Office; (2) it subjects the applicant to an expensive interparty proceeding which may just as well be decided in an infringement suit and because of the expense, places the individual inventor or small company at a disadvantage; (3) it would unduly delay the issuance of a patent, which could be most damaging to an applicant, particularly if the opposition was denied; and (4) it might encourage persons to file oppositions in order to delay the issuance of a valuable patent to their competitor.

CANCELLATION PROCEEDINGS TO CANCEL PATENT

This proposal is undesirable for reasons (1), (2), and (3) above and additionally because the present available declaratory judgment act provides the best relief since it permits the courts to determine validity and infringement so that all issues can be decided in one proceeding. Cancellation would involve determination of validity only; and if cancellation was denied, the patentee would then be faced with a second proceeding in the courts on the infringement issue.

DEFERRED/OPTIONAL EXAMINATION

Deferred/optional examination is undesirable because the delay would be harmful to the public since the scope of the claims would not be known until the full examination (which might be delayed for several years) is consummated and patentable claims determined and published.

REPORT OF THE HOUSTON PATENT LAW ASSOCIATION SPECIAL COMMITTEE ON THE REPORT OF THE PRESIDENT'S COMMISSION ON THE PATENT SYSTEM

B. THE COMMITTEE'S PROPOSALS

The Houston Patent Law Association (hereinafter referred to as HPLA) Committee does not wish to return to the "agricultural economy of 1836" and

suggests some alternative proposals to overcome the only faults found in the U.S. system by the P.C. and reached by their proposals, without abandoning the U.S. system. The Committee proposals are:

(1) Defensive Applications

Any person entitled to file an ordinary patent application can file an application to be called a Dedicated Non-Examined Application which need contain only a single claim to "the features of novelty shown and described" but which otherwise shall conform to the standards for other U.S. applications or set by the Patent Office and which shall be published immediately and which shall bear the notation Dedicated To The People of the United States of America and which shall require payment of a fee equal to the issue fee for ordinary applications in order to defray cost of printing and discourage junk applications but which shall not require any fee comparable to the regular patent application filing fee since there will be no examination of claims or novelty search, so that the total fee will be less than for ordinary applications and hence attractive to defensive patent applicants, and which will have the same interference rights as other applications. Such a system is exemplified in large part by S. 3007. 88th Congress. McClellan, introduced at the request of APLA, 1964.

(2) Expedited Handling of Divisional, Continuation, and Continuation-in-part Applications

These should be treated as mere amendments of the parent case and should be taken up for examination in the order of their earliest effective filing dates, not in the order of actual filing dates.

(3) Conditional Claiming by Junior Applicants

Issue a patent to first to file. Issue a second patent to junior applicant swearing back, with claims conditioned on winning an interference. See appendix for details.

(4) Conditional Claiming by Rejected Applicants

If applicant appeals, issue patent with finally rejected claims conditioned on successful appeal. See appendix for details.

(5) Unified Appellate Jurisdiction

Appeals from trials de novo should be heard by the same Court that hears direct appeals from the Patent Office, e.g. the CCPA. This committee adopts the ABA proposal that trials de novo be had before a trial section of the CCPA and that one CCPA judge sit frequently with each Circuit Court of Appeals hearing a patent case.

C. THE BENEFITS OF A PATENT SYSTEM

The P.C., after deliberation, concludes that a patent system is good for the future because it:

1. Offers incentive to inventors and their backers to invent.
2. Protects investment needed to put new products on the market.
3. Promotes early disclosure of technology that might otherwise long remain secret.
4. Promotes exchange of technological information with foreign countries (importation of technology into U.S.).

This committee agrees with this statement but feels that the present U.S. system better achieves these benefits than the proposed European system.

D. THE STATED FAULTS OF THE PRESENT U.S. SYSTEM

After stating the benefits to be expected from a patent system the P.C. notes the following faults with the present U.S. system:

1. Low quality and reliability of U.S. patent.
2. Long pendency in the Patent Office.
3. Delayed disclosure of technology.
4. (a) High cost of obtaining patent. (b) High cost of litigation patent.
5. Incompatibility with foreign patent systems.
6. Inability to cope with the technology explosion.

The P.C. relates many of the six stated faults with the increasing number of patent applications and increasing volume of prior art but as will appear here-

inafter the P.C. proposals will increase both of them and, on balance, will not increase any of the four benefits of Section C above.

The P.C. sets forth as its six specific objectives the elimination of the above-listed faults. This committee notes that the P.C. does not include in its objectives any improvement in the sharpness of definition of the scope of patents to enhance the right and ability of the public to proceed with new inventions without fear of harassment by patentee asserting unjustifiable scope to their prior patents.

E. COMPARISON OF THE U.S. AND EUROPEAN SYSTEMS

Since the committee prefers the U.S. system but the P.C. recommends a European system, the workings of the two systems need to be considered in some detail, to see which system is better designed to achieve the four agreed on benefits to be expected from a patent system: incentive to invent, incentive to market, incentive to disclose, incentive to import.

(a) *Unpublished Foreign Technology*

The U.S. patent system excludes from prior art foreign knowledge, use, and invention that has not reached the patent or printed publication stage. U.S. inventors are thereby encouraged to fill any gaps in the advance of our technology to put us on a par with other nations.

The European system, *PCR I* (Universal Novelty), will discourage inventors by invalidating their patents on the basis of prior technology unknown to the U.S., e.g. a prior use in Outer Mongolia.

(b) *The Five Graces*

The U.S. system encourages the inventor prior to filing his patent application to search the prior art to see if idea is new, and if so to—

- i. make a physical embodiment of his invention;
- ii. test his invention experimentally;
- iii. modify his original physical embodiment and/or conception to make it successful, thereby reducing the invention to practice;
- iv. publish his invention;
- v. try out his invention commercially to arrive at a preferred embodiment.

To allow the foregoing to take place, the U.S. system is characterized by the five graces:

1. Grace period (as long as it takes) after conception in which to diligently accomplish the construction, testing, and reduction to practice before filing application without losing rights to a prior applicant.
2. Grace period (as long as it takes) after conception in which to diligently reduce invention to practice without losing rights to later inventor.
3. Grace period (as long as it takes) after making physical embodiment in which to test it out publicly experimentally before filing patent application without losing rights to the public.
4. Grace period (one year) after own publication of invention in which to file patent application without losing rights to public.
5. Grace period (one year) after publication by a later inventor before filing own patent application without losing rights to public.

According to the European system, *PCR I* (First to File), all of the foregoing grace periods are zero, that is, they are nonexistent. Inventors are encouraged to race to the patent office with disclosures of mere conceptions, without actual physical embodiment, test, reduction to practice, or development of commercially preferred embodiment.

(c) *The Quid Pro Quo*

The U.S. patent system encourages disclosure of technology through patenting thereof by keeping the patent application secret until the scope of protection to be awarded has been determined by examination and allowance of patent claims. The inventor knows the consideration he will receive before he has to decide whether to make his secret invention available to the public.

The European system, *PCR VII*—Publication, in its rush to effect disclosure of the invention, calls for publication of the disclosure prior to issue of the patent. Since inventors do not know the scope of protection to be accorded in exchange for disclosure of their secret invention, many may prefer to practice their invention in secret.

A particular evil of publication of unexamined application is dilution of the patent library with duplicating disclosures, making searching more difficult and doubling the cost of classification and storage.

(d) *The Claims*

The U.S. patent system requires the inventor to distinctly point out and claim his invention. That which is disclosed but not claim is dedicated to the public. In addition, the Patent Office examines the claims and rejects that which is obvious from the prior art known to the Patent Office. These two procedures, dedication by non-claiming and rejection for obviousness over art known to the Patent Office, greatly cut down on the area of uncertainty of scope of a patent so that the public will know what roads of progress are toll roads and can take other paths if it wishes.

Under the system proposed by the P.C. including publication of applications and deferred examination, instead of an infringement searcher having to consider 850,000 live published patents with examined claims and to contemplate the possible coverage of 250,000 pending unpublished applications, the searcher will also have to consider approximately 150,000 unpublished pending applications, 500,000 published unexamined applications, and 500,000 published patents with examined claims. The 500,000 unexamined published applications of uncertain scope, representing the most recent technology, will present an almost insurmountable obstacle to anyone wishing to depart in the slightest from expired art technology. Progress will stagnate.

Further, an applicant under deferred examination may file many conceptions of impractical species of inventions and await a competitor's developmental effort proving commercial value of specie X which the applicant never conceived, and then shape his claims generically to several species including species X. Thus the competitor who spent the developmental money may under deferred examination provide both the proof of validity and the definition of the invention to an applicant who spent no developmental money. This michievous situation, which is not rare with two to four year pendencies of applications, may be multiplied manifold when five years or so deferment time is added to pendency time in actual prosecution.

Unexamined patent (cf *PCF IX*—Deferred Examination) impede progress. Since the scope of such patents is completely unknown, a manufacturer must follow the expired art in order to be sure of freedom from patent infringement. All roads of progress are toll roads.

If the manufacturer decides to risk making a forward moving change, he will prefer to keep his action secret to the maximum degree in hope that he will not be found out. This too encourages development of trade secret technology.

It is recognized that some European countries examine their patent applications. It is also clear that such countries are more advanced technologically than their neighbors. The German, British and Scandinavian countries have had patent examination systems. The Swiss have just adopted such a system. On the other hand, France and Italy do not examine their patents. The Japanese have an examination system. The Chinese have no patent system at all. The Dutch had an examination system; what progress should they expect now that they have abandoned it?

(e) *Dedication by Publication*

The U.S. system presumes that if an inventor fails to file within a prescribed period after any publication, the invention is dedicated. The inventor is protected by the length of the grace period. The public need consider only if the publication is early enough, not its source.

The European system, *PCR I*—Prior Art, denying the inventor any grace period, seeks to protect him against unauthorized disclosures by expecting them from prior art, *PCR III*—Exceptions to Prior Art. An early publication therefore loses its character as an absolute dedication. The public must seek to ascertain the source of a publication before relying on it as a dedication as of its publication date. One more element of uncertainty is introduced into the already too difficult determination of the question of right to make without infringement.

(f) *Final Determination of Scope of Patent*

The U.S. system recognizes that the Patent Office cannot make a final determination of the scope of protection to be accorded an invention since the Patent Office does not and cannot know all of the prior art. The prior art includes invention, knowledge, and use prior to the applicant's invention and public use

and placing on sale over a year prior to filing of the application. These are matters which it is difficult for the Patent Office to ascertain. The Patent Office examination is therefore restricted to a consideration of prior patents and some printed publications. Although public use proceedings are provided for by law the Patent Office has properly discouraged them as difficult and expensive to administer.

In the U.S. system the final determination of the scope of a patent is left to the acid test of an infringement suit. Only if an invention has such value as to justify a competitor in risking an infringement suit (or declaratory action) are the public and the patentee put to the burden and expense of determining precisely the scope of the patent by decision of a judge or jury. In the courtroom the competitor is given an opportunity to bring forth all the obscure prior uses and sales and little known publications that he can find after diligent search, and they are given full and final consideration at that time.

In the European system, recommended by the P.C., an effort is made to shift much of the courtroom activity back to the Patent Office through opposition proceedings, *PCR XI*—Citation, and cancellation proceedings, *PCR XV*. The actual result is that competitors may harass patent applicants with pseudo oppositions to delay issue of their patents. This is especially effective under the European system when the patent term runs from the filing date. Cancellation proceedings permit the harassment to continue after the patent issues. Yet the competitor will not risk citation of his best prior art in such an ex parte proceeding where he is not given a full opportunity to present his case. The ultimate decision of patent scope must still be made in the courtroom where the scope of the claims is determined with respect to their possible application to a particular infringing device. Absent an interpretation of the claims by the patentee as applicable to, i.e. equivalent to, a particular infringing construction, a final validity determination by way of opposition is likely to be in error.

Oppositions and cancellations are costly and will eat up the Patent Office budget. It is for this reason that the Patent Office now discourages public use proceedings. It is more economical to limit final determination of patent scope and validity to cases of actual controversy as at present, with an infringement action or declaratory suit.

(g) Priority Determination

In the U.S. system, priority of invention is determined partly on the basis of documents of record, the conflicting applications, and partly on the basis of research and development records. It is recognized that it would overburden the Patent Office and patent profession to reduce all R and D records to standard form for recordation in the Patent Office and that the Patent Office would be overburdened if it had to store all such records. An attempt to provide for recording of R and D conceptions prepared by laymen was once part of the U.S. system. Inventors were allowed to file their evidence of conception in documents known as "Caveats". Due to various factors, including the poor quality of the disclosures and the difficulty in correlating them with later filed patent applications, such Caveats were abolished in 1910.

PCR II—Preliminary Applications, suggests that we adopt the British system of filing provisional applications. To the extent these are in standard form and are prepared by the patent profession, they differ very little from U.S. practice which permits the filing of original applications followed by continuation-in-part applications. To the extent a provisional application is prepared by a layman it differs little from a Caveat and serves little useful purpose and begets mischief.

The P.C. further recommends that ONLY conceptions filed in the form of preliminary applications be accorded any weight (first to file system). It is felt by the committee that this will necessitate filing of such R and D preliminary applications by laymen, for the patent profession is not large enough to handle the volume to be expected. However, because of the Government fees involved, many R and D records will not be filed and as a result inventors will always be concerned that their investment in R and D will be lost to later inventors who do decide to file. At present, out of 100 R and D conceptions, only a few are found after test to warrant a patent application. The first to file system demands that all 100 R and D conceptions be filed in order to protect the few that may turn out to be practical.

Although the P.C. first to file system purportedly will abolish interferences, actually they will continue to exist in the form of priority contests relating to sufficiency of preliminary applications to support later filed complete applica-

tions. The committee feels that if priority contests are to continue they should be full blown to show all the facts of inventorship rather than being limited to the inherently incomplete records of the Patent Office. Speed of typing and mail service should not be substituted for diligence in reduction to practice in determining the ownership of valuable inventions.

PCR XXXIII—Inventor's Certificate, would accord convention priority to a Russian applicant for U.S. patent based on his prior inventor's certificate. No advantage is seen by the committee in thus encouraging those who have advised that they will "bury us".

(h) *The Burden of Prompt Prosecution*

In the U.S. system the burden is placed on the patentee to prosecute his application promptly in order that his patent will issue promptly before its technology has become obsolete. The burden is placed on the Patent Office to prosecute applications promptly in order that the patent will not issue unexpectedly after the art has developed in ignorance of the pending patent and without making allowance for it.

The European system, proposed by the P.C., attacks the problem by publishing the patent application immediately, *PCR VII*—Publication, and by starting the patent term with the filing of the application, *PCR XVIII*—Term of Patent, and *PCR XXIV*—Term of Measurement, seeking to water down the bad effects of the shortened term by *PCR XVII*—Interim Liability, and *PCR XIX*—Secrecy Order.

The bad results flowing from publication prior to patenting or without examination have already been mentioned (*supra* (b) *The Quid Pro Quo*). The error in running the patent term from the filing date is that it assumes the interest of the public lies in cutting down the patent term rather than in giving prompt protection to the invention. Without prompt protection the inventor is not stimulated to invent and the investor is not encouraged to risk capital in putting the invention on the market.

F. ELIMINATION OF DELAYED PROSECUTION

In addition to *PCR VII*—Publication, and *PCR XVIII*—Term of Patent (Runs from Filing Date), both discussed above, other P.C. recommendations affecting or effecting delay are:

PCR XXVII. Patent Office Financing—should be adequate.

PCR XI. Citation.

PCR XV. Cancellation.

PCR IX. Deferred Examination.

PCR VIII. Continuing Applications.

PCR XIV. Appeal from CCPA.

PCR II. Preliminary Applications.

PCR I. Prior Art—First to File.

The U.S. system has not been working well with respect to effecting prompt prosecution of patent applications, because the Government has failed to carry its burden. In particular:

1. Insufficient funds have been provided to effect speedy disposition of interferences and appeals:

2. The Patent Office has until recently failed to give priority in the examination procedure to those applications having the oldest effective filing date and instead has acted on cases in accordance with the age of the last amendment.

3. The Government has burdened the Patent Office unnecessarily by taking out Government-owned patents. These patents are presumably of a defensive nature and are often taken out on many inventions whose insignificant worth would not warrant a private concern in seeking protection thereon.

The P.C. recognizes these problems in pointing to the backlog of over 200,000 pending applications and the average pendency period of 2½ years with some applications pending for 5 or 10 years.

The P.C. apparently would provide more financing for the Patent Office (*PCR XXVII*) with which the committee heartily agrees. However, the committee notes that saddling the Patent Office with Oppositions (Citation) and Cancellation Proceedings (*PCR XI* and *PCR XV*) will increase the cost of Patent Office operations.

The P.C. would solve the Government-owned defensive patent application problem by permitting deferred examinations (*PCR IX*). However, this is not limited to Government-owned applications and would allow private concerns to

defer up to 7½ years the determination of the scope of their patents. This is in effect the European registration system, the French system, with the resulting stagnation of progress. It limits change solely to substitution of one old art idea for another, for fear of infringement of an unexamined patent.

The HPLA committee agrees that there is no need to examine Government-owned applications, it being presumed that they belong to the public. The committee also would permit private concerns to file non-examined applications if they are dedicated to the public. The Dedicated Non-Examined Application is one of the committee's recommendations to handle the problem of delay in the Patent Office.

To overcome the delays due to filing of divisions, continuations, and continuations-in-part, the P.C. would curtail the priority to be accorded to them (*PCR VIII—Continuation*). This conforms to European practice where relating back to a parent case is largely unknown. The committee feels that this is an unfair remedy and that the delays can be overcome by examining such applications in turn.

The P.C. has no proposal to overcome delay due to appeals. In fact the P.C. would add one more step to the appellate procedure (*PCR XIV*), thereby further increasing the delay. The committee believes appeals should be unified, not multiplied, and recommends the ABA approach.

The P.C. would overcome interference delays by its first to file system, *PCR I—Prior Art*, with all the resulting bad results previously mentioned. See above—The Five Graces. Yet the P.C. would also institute a species of interference practice, namely, the preliminary applications filed by laymen. The objections to this method of priority determination are discussed above under that heading.

The committee proposes to cure the interference delay problem with its Conditional Claiming System which would neither force interferences nor abrogate the rights of first inventors if they pursue their rights within one year.

G. IMPROVEMENT IN VALIDITY OF PATENTS

In addition to adoption of the undesirable European system discussed above, the P.C. makes additional recommendations to improve patent validity as follows:

PCR IV. Patentable Subject Matter—no design, plant, or program patents.

PCR X. Burden of Persuasion—placed on applicant.

PCR XII. Quality Control:

(a) Internal Control System.

(b) Published Annual Rating.

PCR XIII. Presumption of Correctness (of Patent Office decision).

PCR XXIII. In Rem Invalidity.

The committee feels that progress in the field of design, plant and program inventions should be encouraged. Although the *PCR IV* mentions alternative protection, it does not specify same in detail. Until something better is worked out the committee favors retention of patent protection for designs, plants and programs.

Due to the fact that the Patent Office does not have all the prior art available and does not have much actual field experience in the arts in which it is examining inventions, the committee feels that the Patent Office should work with a coarse stroke and not try to resolve delicate questions of obviousness and unobviousness. Many patent claims will be invalid anyway due to lack of knowledge of the prior art by the Patent Office. The Patent Office should resolve doubts in favor of the applicants and let the final scope of patents be determined in litigation, as will be the case anyway. The burden of persuasion should not be placed on the applicant while he is in the Patent Office as proposed by *PCR X*.

Quality control is fine. By this we mean insistence on a thorough novelty search and an application of the obviousness test. But annual ratings, for the benefit of the Courts, are believed to be without merit. A general average is not of any weight in deciding the validity of a particular patent. The committee opposes *PCR XII(b)*.

Presumption of the correctness of the Patent Office—*PCR XIII*, is an obviously erroneous presumption in view of the lack of practical field experience of most patent Examiners. The committee disapproves the recommendation.

In rem invalidity is unjust if it applies to a second decision when the first decision upheld the patent. The inverse case may also be envisioned wherein a patent is held invalid on the first trial because stretched too far to cover a remote infringer. A later trial against a pure copyist may produce a different result. Patents once held invalid usually present little problem to industry. It is not necessary to go to in rem invalidity to care for a substantially non-existent problem. The committee opposes *PCR XXIII*.

II. REDUCED COST OF LITIGATION

Civil Commissioners, *PCR XXIV*, are objectionable as introducing one more judicial entity to guide the litigation. We would prefer instead to see more judges.

Expedited Procedure for Limited Claims, *PCR XXV*, introduces nothing new by way of allowing submission of cases on stipulated facts. It is only the incentives to persuade the parties to so stipulate that are new, namely a license to the infringer or attorney's fees to the patent owner, both seem inequitable. Again, conformity to foreign practice, e.g., compulsory licensing and inclusion of attorney's fees in costs, appear to be the real thought.

J. OTHER AD HOC P.C. RECOMMENDATIONS

PCR V would:

- (a) permit filing, by assignee;
- (b) require naming of inventors;
- (c) eliminate misjoinder or non-joinder as a ground of invalidity.

Once again foreign practice is to be recognized. To the extent this proposal facilitates filing when the inventors cannot be located and also allows point applications even though every inventor did not contribute to every claim, the committee favors this proposal.

PCR VI requires claim for benefit of earlier filing date of prior application to be made at time of filing. This seems reasonable, but should not prevent a late claim for priority on showing of reasonable cause.

PCR XVI would ban broadened reissues. On the basis of equity in rectifying mistake, thereby to encourage inventors by awarding adequate protection to their inventions, the committee opposes this recommendation.

PCR XX—Terminal Disclaimer would eliminate the rule of the CCPA that there is no double patenting if the patents expire at the same time and are filed by same inventor or common assignee. The P.C. objects that the CCPA rule permits the applicant to fully protect himself against obvious variations of his invention. The committee favors such protection of invention and opposes *PCR XX*.

PCR XXI makes importation of a product, e.g., gasoline made abroad by a process patented in the U.S., a patent infringement. While questioning how such infringement can be proven, the committee accepts this recommendation as a retaliatory measure because it understands other countries have such laws.

PCR XXII, Patent Right Transferability, upholds the rights of patentees against attack under the antitrust laws and is approved by the committee.

PCR XXVI for a Statutory Advisory Council appears to be designed as a vehicle for determining when deferred examination shall begin and for advising the Secretary of Commerce publicly of the annual rating of patent. It is therefore opposed by the committee.

PCR XXVII, Patent Office Financing, provides:

- (1) The Patent Office should not be self-sustaining.
- (2) The Commissioners should set the fees.
- (3) A Patent Office Revolving Fund should be established.

The committee approves the recommendation provided the Commissioner is not given too much leeway in setting fees.

PCR XXVIII provides that a final rejection shall not be given if a new ground of rejection is given. The committee favors the recommendation but feels it is not a matter for legislation, but rather for amendment of Patent Office Rules.

PCR XXIX and XXX call for better classification and distribution of patent technology. The committee favors these proposals.

PCR XXXI calls for a rapid transition to the new system. The committee opposes the new system. The few P.C. recommendations the committee favors do not require any hasty action. Prompt action on the committee's five proposals is urged however.

PCR XXXII regarding Government Patent Policy is commendable. The P.C. statement of objectives forms a sound basis for legislative action because it follows therefrom that the Government should never attempt to enforce any patent rights.

K. CONCLUSION

Instead of downgrading the U.S. patent system so that it will conform to foreign patent practice, it is suggested that the internationalists attempt to upgrade foreign patent practice to conform to the proven superior U.S. system.

If the cost of the U.S. system is higher than that of the European system, it is also true that the price reflects the quality.

APPENDIX

CONDITIONAL CLAIM SYSTEM FOR JUNIOR APPLICANTS

1. First to file as evidenced by Serial Number, receives a patent.
2. Application or Patent or First to File is cited against later applicants.
3. Office states at time of rejection whether reference is cited to show prior disclosure or prior claiming.
4. Junior applicant is given opportunity to swear back of reference, with supporting evidence to make out prima facie case of priority.
5. If junior applicant swears back of reference satisfactorily, reference is no longer considered as prior art and junior applicant prosecutes his application to issue.
6. If reference was cited to show only prior disclosure, junior applicant's patent is on same footing as any other patent.
7. If reference was cited to show prior claiming, junior applicant's patent claims that would be rejectable on claims of senior applicant, are issued only on a conditional basis, being inoperative until junior applicant has won an interference.
8. When office rejects junior applicant on basis of senior applicant's prior claiming, the senior applicant is also given notice thereof.
9. Both applicants have right to provoke interference at any time within one year of date of issue of last to issue of the two patents.
10. Ex parte prosecution of applications will be continued regardless of whether or not interference proceedings are in progress.
11. Interference proceedings will initially be held in Patent Office. After termination of interference, loser's claims are cancelled.
12. If due to interference proceeding successful junior party's conditional claims are not activated for a period exceeding 7 years after his issue date, his patent term will be extended to give his activated conditional claims a term of 10 years from date of activation.
13. If neither party provokes interference within one year of issue date of last to issue, the conditional claims lapse. However junior applicant and third parties can raise junior applicant's priority as a defense to an infringement suit.
14. In case senior party's application has not issued as a patent when cited, only its filing date will be given to junior applicant.
15. If the citation is to show only prior disclosure, junior applicant unable to swear back, may demand to see senior applicant's application, conditioned however on showing his own application to senior applicant. If junior applicant makes such a demand, his filing date will be given to senior applicant. The senior applicant must then make his application available to the junior applicant or have his filing date deemed to be subsequent to junior applicant's, i.e. one-half serial number greater.

CONDITIONAL CLAIMING SYSTEM FOR REJECTED APPLICANTS

1. After Final Action and Appeal to Board of Appeals, a patent will issue with claims existing at time of Appeal.
2. Issue fee will be paid at time of Appeal.
3. Rejected claims in patent will be conditioned upon successful Appeal.
4. Term of rejected claims activated by winning Appeal may, e.g.:
 - (a) run from date of issue of patent with 10-year minimum, same as in case of interference, or
 - (b) run from date of issue of patent and have retroactive effect upon activation.

Respectfully submitted,

HPLA SPECIAL COMMITTEE ON
THE PRESIDENT'S COMMISSION,
MURRAY ROBINSON, *Chairman*.
TOM ARNOLD
JOE E. EDWARDS
M. H. GAY
JEFFERSON D. GILLER
WILLIAM F. HYER
THOMAS G. McCULLOCH

Ex officio: Frank S. Troidl, Past President; Ralph R. Browning, President.
Consultants: J. Vincent Martin; Frank B. Pugsley.

HOUSTON PATENT LAW ASSOCIATION,
Houston, Tex., January 22, 1968.

Re pending patent legislation.
Hon. RALPH YARBOROUGH,
Hon. JOHN TOWER,
U.S. Senate Office Building.

DEAR SENATORS YARBOROUGH AND TOWER: We in the Houston Patent Law Association have been most appreciative of your interest and efforts in behalf of the proposals for patent law revisions emanating from our Association and of the views our Association has expressed. We are particularly grateful to you for the joint introduction of S. 2164.

At this time we submit a proposed amendment to the Dirksen-ABA bill S. 2597 for the purpose of adding thereto perhaps the most significant feature which the Yarborough-Tower bill would add to the present law. A copy of this proposed amendment is enclosed.

S. 2164, as you know, would amend the present patent laws to incorporate certain provisions which our Association is convinced would deal with certain problem areas in the patent system without destroying the major principles which have proved so successful through long experience in inducing the investment or risk capital for the development of inventions and encouraging research and development work which advances the technology generally.

As Senator Yarborough observed in offering S.2164, it was expected at that time that the recommendations embodied in your bill would parallel the recommendations of the American Bar Association. This has proved true.

As introduced by Senator Dirksen, S.2597, which is the bill sponsored by the American Bar Association Patent Section, not only parallels S.1264, but actually incorporates to a greater or lesser degree most of the proposals of S.2164, although not in identical form in every case.

There is one feature of the Yarborough-Tower bill, however, which we consider of great importance and which, though not in conflict with the Dirksen bill, is not incorporated therein. This provision is the one which would issue patents promptly without waiting for the outcome of appeals from adverse Examiner decisions or priority contests between inventors.

Accordingly as its meeting on January 16, 1968, the Houston Patent Law Association passed a resolution of which a copy is attached hereto and authorized persons speaking in behalf of the Association to take the position indicated.

The Dirksen bill preserves the outstandingly important principles of the present law and includes a number of innovations which appear likely to be beneficial. As long ago as last July, the Patent, Trademark and Copyright Section of the State Bar of Texas endorsed what was then an informal version of the now Dirksen bill, but urged its amendment to include the provisions above mentioned for prompt issuance of patents without awaiting the outcome of appeals or priority contests, which provision has become popularly known as the conditional claiming feature of the Yarborough-Tower bill. Now the Houston Patent Law Association has endorsed the Dirksen bill subject to its amendment to include this provision of the Yarborough-Tower bill, and has further urged its amendment to include all of the other provisions of the Yarborough-Tower bill insofar as they may not be already fully included.

Pursuant to this action by the Association, the committee which largely drafted the Yarborough-Tower bill has drafted an amendment to the Dirksen bill for the purpose of incorporating into the Dirksen bill the conditional claiming feature substantially in accordance with the Yarborough-Tower bill. Another amendment which would make minor changes to more completely incorporate the other provisions of the Yarborough-Tower bill into the Dirksen bill is not yet quite complete.

However, we feel that the proposed amendment to the Dirksen bill for incorporation of the conditional claiming feature of the Yarborough-Tower bill is in shape now to be offered and we submit it to you with the request that you consider offering it immediately as an amendment to the Dirksen bill.

I expect to testify before the Senate Subcommittee on Patents on January 31, 1968 in behalf of the Houston Patent Law Association's position regarding the Administration's bill S.1042, the Yarborough-Tower bill S.2164, and the Dirksen bill S.2597, including support of the Yarborough-Tower bill in its entirety and support of the Dirksen bill with the proposed amendments. I shall contact your offices on January 30 so that I may touch base with you before giving my testi-

mony. Also, when my prepared statement is complete, a copy will be forwarded to each of you.

Respectfully yours,

RALPH R. BROWNING.

Enclosure.

HOUSTON PATENT LAW ASSOCIATION RESOLUTION

(a) generally favors and will support the ABA proposal to incorporate a trial section in the CCPA:

(b) endorses and will support the Dirksen bill S. 2597 if amended to include conditional claiming to effect the issue of patents without delay for priority contest or appeal.

(c) favors the further amendment of the Dirksen bill S. 2597 to incorporate all of the other provisions of the Yarborough-Tower S. 2164 (and the Bush H.R. 10006 and Casey H.R. 10027) bill.

CONDITIONAL CLAIMING AMENDMENT TO S. 2597 (PRE-HONOLULU ABA PATENT BILL)

Amendment To incorporate principles of Yarborough-Tower bill relative to issue of patents without delay (1) pending appeal; (2) pending priority contest

Fourth Draft 1-25-68 (Same as Third Draft except for adding Section 291 and the changes noted on pages 2, 5 and 7)

Section 7—Board of Appeals

In subsection (b)-(2), change "Sections 136 and 137" to "Section 137".

Section 137—Appeal to the Board of Appeals

Add the following to § 134:

"Upon perfection of an appeal under § 134 the Commissioner shall treat the application as though the applicant is entitled to a patent including the appealed claims and any previously allowed claims, except that the appealed claims shall be *conditional*.

"If after an appeal to the Board of Appeals under § 134 hereof has been perfected and a patent has issued to the applicant, it is determined that the applicant is entitled to claim or claims differing from an appealed claim, a printed copy of each such different claim shall be attached by the Commissioner to each printed copy of the patent, and such attachment shall be considered a part of the patent as of the date of the attachment.

"Upon termination of proceedings relative to an appealed claim in a manner adverse to the application or patent containing such claim, such claim shall be deemed cancelled and notice thereof shall be endorsed on copies of the patent thereafter distributed by the Patent Office and on the original grant, which shall be surrendered to the Commissioner for that purpose."

Section 136—Reexamination After Publication

Cancel subsection (d) and the portion of subsection (e) following the comma, and reletter subsections (e) and (f) as (d) and (e).

Section 137—Priority of Invention

Cancel present Section 137 entirely and substitute the following:

"§ 137. Presumptive and Inchoate Prior Art

"(a) **Presumption of Priority.**—The Commissioner shall initially presume that the invention set forth in the claim of a pending patent application has a date of invention that is the same as the effective filing date of said pending application as to such claim.

"(b) **Presumptive Prior Art.**—Presumptive prior art consists of that part of the prior art included in items (1) and (3) of the § 100 definition thereof which antedates applicant's effective filing date relative to the subject matter of a claim

but which was not published more than one year before applicant's earliest actual filing date in the United States, to which said claim is entitled.

"(c) Swearing Back.—To swear back means to establish as to the subject matter of a claim a date of presumed invention earlier than that specified in paragraph (a) hereof by making a prima facie showing that at least by a certain day *an* inventor named in the pending application made the invention in the United States, or abroad to the extent proof is permitted under Section 104, and that said invention has not been abandoned, suppressed, or concealed, and to offer to present evidence in support of such showing.

"(d) Overcoming Presumptive Prior Art Not Claiming Same Invention.—The Commissioner shall not use presumptive prior art, alone or in combination with other prior art, as a ground for rejection of a claim in a pending application if the applicant swears back to a date prior to the effective date as prior art of such presumptive prior art, unless said presumptive prior art is a United States patent or application claiming the same invention as set forth in said claim, or the substance thereof.

"(e) Overcoming Presumptive Prior Art Claiming Same Invention.—If presumptive prior art is a United States patent or application claiming, conditionally or not, the same invention, or the substance there, as that set forth in an applicant's claim and the applicant swears back to a date prior to the effective date as prior art of such presumptive prior art, the Commissioner shall proceed with examination of said claim the same as though said presumptive prior art were not part of the prior art, except that on allowance of such claim and any claim unpatentable over such claim, said claims shall be *conditional*.

"(f) Inchoate Prior Art.—Inchoate prior art means, as regards a claim of a pending application or patent, the disclosure of an unpublished U.S. patent application to the extent such disclosure is entitled to a filing date earlier than that of said claim.

"(g) Search of Inchoate Prior Art and Action Relative Thereto.—Prior to allowance of any application the Commissioner shall cause a search to be made of the inchoate prior art to determine whether or not any inchoate prior art claims the same invention or the substance thereof, as that covered by any claim of the application to be allowed and if he finds in the affirmative such finding shall not prevent allowance but each such claim shall be *conditional*.

"(h) Patentability Contest.—Upon allowance and publication of a pending application containing a claim that is conditional because it is for the same invention, or the substance thereof, as that claimed in presumptive or inchoate prior art the applicant of such pending application shall, before expiration of six months from the date of patenting of said inchoate prior art or said pending application, whichever is the later, initiate a contest with the owner of such presumptive or inchoate prior art for the determination of the patentability of his claims and those of said inchoate or presumptive prior art in such proceedings as the Commissioner shall establish by regulation or bring a suit under section 291 relative to said claims, otherwise such conditional claim shall be cancelled by the Commissioner.

"In such proceeding each party may present proof of prior art of all kinds defined in section 100 and to establish any ground for unpatentability.

"The pendency of such a proceeding shall not prevent issuance of a patent on such application nor suspend *ex parte* prosecution of the application constituting the inchoate prior art.

"(i) Cancellation of Claims After Patentability Contest.—A final judgment adverse to a patentee or applicant in a proceeding under section (h) *supra*, from which no appeal has been or can be taken shall constitute cancellation of the claims involved from the patent or application and notice thereof shall be endorsed on copies of the patent thereafter distributed by the Patent Office.

"(j) *Time Limit on Copying Claims*.—A claim for the same subject matter as a claim of an issued patent or for the substance thereof, may not be made in any application unless such claim is made prior to six month after the date on which the patent was granted."

Section 139—Amendment After Proceedings Under Sections 137 and 291

Add a new Section 139 as follows:

"§ 139. Amendments After Proceedings Under Sections 137 and 291

"If a party to a proceeding under Section 137 or 291 loses a claim as a result thereof, and such party did not have available to him the disclosure of a relevant application of another party to the proceeding prior to the end of the time during

which he could add to or amend the claims of his application, such losing party may file a reissue or continuation application to further prosecute claims to his invention, and in such reissue application the time limitation of Section 251 hereof shall not apply."

Section 141—Appeal to Court of Customs and Patent Appeals

Cancel subsection (b) and substitute therefor:

"(b) An applicant or patentee dissatisfied with the decision in a proceeding under § 137 (h) of this title may appeal to the United States Court of Customs and Patent Appeals.

Section 145—Civil Action

After "claim", (page 21, line 2), insert "or with the result of a proceeding under section 137 (h)".

Section 152—Conditional Claims

Add a new Section 152 as follows:

§ 152. Conditional Claims

"A conditional claim in an issued patent shall not be entitled to the presumptions of Section 282 so long as it remains conditional.

"A notice of infringement of a conditional claim pursuant to § 284 (b) shall have the same effect relative to establishing a right to a declaratory judgment action as a notice of infringement of a claim that is not conditional.

"Section 286 shall apply to patents containing conditional claims.

"Section 287 does not apply to patents containing only conditional claims nor to the conditionally claimed part of patents containing both conditional and unconditional claims.

"Conditional claims may be the basis of suits under Section 291.

"Conditional claims appealed under § 134 can also be the subject of proceedings under § 137.

"Upon removal of all the causes for the condition of an issued conditional claim, e.g. winning an appeal, or prevailing in a proceeding under § 137 or § 291. abandonment of the conflicting claims of the application which constituted the inchoate prior art, or in any other manner, *such claim shall no longer be conditional* and notice thereof shall be given to the owner of the patent by the Commissioner and endorsed on copies of the patent thereafter distributed by the Patent Office and on the original grant on request by the owner thereof."

Section 271—Infringement of Patent

Cancel subsection (f) and substitute therefor the following:

"(f) The scope of the invention protected by a patent under this section shall be determined by the claims thereof except that conditional claims shall not be considered.

"Whoever performs an act which would make him liable for infringement of a conditional claim of a patent had such claim not been conditional, shall become liable for such act as an infringer if such claim subsequently ceases to be conditional."

Section 283—Injunction

In subsection (b) cancel "made prior to grant of the patent and".

Section 284—Damages

In subsection (b) cancel "claim of a published application" and substitute "conditional claim of a patent".

Section 291—Interfering Patents

Add a new Section 291 as follows:

§ 291. Interfering Patents

"(a) The owner of an interfering patent may have relief against the owner of another by civil action, and the court may adjudge the question of the validity of any of the interfering patents, in whole or in part. A final judgment adverse to a patentee from which no appeal or other review has been or can be taken or had shall constitute cancellation of the claims involved from the patent, and notice thereof shall be endorsed on copies of the patent thereafter distributed by the Patent Office.

"(b) A civil action under subsection (a) may be instituted against the party in interest as shown by the records of the Patent Office, but any party in interest

may become a party to the action. If there be adverse parties residing in a plurality of districts not embraced within the same state, or an adverse party residing in a foreign country, the United States District Court for the District of Columbia shall have jurisdiction and may issue summons against the adverse parties directed to the marshal of any district in which the adverse party resides. Summons against adverse parties residing in foreign countries may be served by publication or otherwise as the court directs. The Commissioner shall not be a necessary party but he shall be notified of the filing of the civil action by the clerk of the court in which it is filed and shall have the right to intervene."

Senator McCLELLAN. The next witness is Mr. Cappello. Do you have anyone with you?

STATEMENT OF HENRY J. CAPPELLO, PRESIDENT, SPACE RECOVERY RESEARCH CENTER, AND CONSULTANT TO NSBA

Mr. CAPPELLO. No, sir. I am all alone today.

I am Henry J. Cappello, consultant on patent policy for the National Small Business Association, and I am also president of Space Recovery Research Center, Inc., a small Florida corporation whose business is based entirely on a proprietary patented product. I am also a lawyer but not a patent lawyer.

Senator McCLELLAN. Do you want to submit your statement for the record and then comment on it briefly?

Mr. CAPPELLO. Yes, sir, I would like to highlight the statement for you.

Senator McCLELLAN. Very well. It may be printed in full in the record, and any part of it that you do not quote can be incorporated in the record.

You may proceed.

Mr. CAPPELLO. On behalf of the National Small Business Association, I wish to express our appreciation for this opportunity to present our views on this important area of legislation.

We support the objectives set out in the report of the President's Commission on which the administration's patent reform bill is based. However, we believe that certain recommendations of the Commission, and certain provisions of the legislation require revision and improvement. In general, we feel that many of the suggestions of the American Bar Association have merit and should be considered in the proposed patent reform bill.

Of one thing there can be little doubt. Changes are needed in the existing structure of the patent laws. The individual inventor and small businessman no longer derive from the patent system that measure of incentive, encouragement and protection which promoted our tremendous growth and prosperity during the industrial revolution. Patents today are not as good as they should be, from the standpoint of inventors and small businessmen, because they are too uncertain as to validity and enforceability, and too costly in the amount of time and money required to establish and protect the "limited monopoly" needed for successful exploitation.

Our objective, as far as possible, is to enhance the position of small businessmen in relation to value and enforceability of patents.

Since the proposed legislation is not addressed to the problem of improving the quality of issued patents, we will refrain from comment in this area, except to say that we are deeply concerned. The quality of examination, as well as the speed of examination, needs to be im-

proved by the adoption, as soon as feasible, of whatever legislative, fiscal or administrative remedies are indicated to stop the issuance of patents that will not stand the test of litigation. It is almost more of a disservice to the individual inventor and small businessman to issue to him a worthless patent than it is to deny him a patent on a product of marginal commercial value. Admittedly this is a judgment area with many shades of gray, but we believe that the scales need to be tilted a substantial amount toward improving the quality of issued patents.

The proposed patent reform bill, S. 1042, deals with some concepts that are new to U.S. patent law, but which have been more or less successfully employed in foreign countries or are in an early experimental stage. Whether these innovations can or should be adapted for U.S. requirements are questions requiring detailed study and analyses before any steps are taken to incorporate them in our laws. We suggest to the committee that in accepting or rejecting any such change the primary consideration should be its effect on individual inventors and small businessmen.

Our recommendations regarding the proposed legislation are addressed primarily to broad concepts incorporated in the report of the President's Commission.

A. FIRST-TO-FILE CONCEPT

This proposed change has considerable merit for the reasons stated by the Commission. In taking a position in support of the first-to-file concept, we disagree with the contention that such a system discriminates against small business. In our view the present system, with its costly and time-consuming interferences and the requirements for witnessed and corroborative records, gives larger companies in many instances an unwarranted advantage over smaller concerns. While supporting the general principle of first-to-file, we feel, however, that certain safeguards need to be included if this procedure is to serve the needs of small business.

In our experience, it is not unusual for a considerable period of time to elapse between initial reduction to practice of an invention, and its refinement to the point that a complete set of claims can be drafted. In the case of the last invention patented by my company involving what appeared to be a simple aerological device, it took approximately 20 months for the inventor to analyze his invention, even though he worked with it in private practically every day. The description and the working model supplied were sufficient for the patent attorney to draft seven claims (all of which were allowed), but in the period between drafting of the claims and issuance of the patent—a period consuming 2 years—it became obvious that some of the principles of operation had been misunderstood and that some auxiliary improvement could be made to improve the performance of the product and provide additional claims. As a result, a continuation-in-part was filed. About a month after this, the patent was issued. Subsequent to issue, it was discovered that our company still not completely understood how or why the device works, and that at least two errors had been made innocently in the original claims. A reissue patent was then applied for. This history of one patent shows clearly that an individu-

al inventor or small company with limited resources needs time to perfect new concepts so that complete and accurate claims can be filed.

We believe that a personal grace period of a year must be provided for inventors. Furthermore, current practice encompassing continuations, continuations-in-part, and reissue must be retained in the law.

We do not agree with the approach of the American Bar Association in proposing a first-to-file system which is that in name only, while retaining in the law all of the elements of the first-to-invent system, with its associated interference procedures. We believe that the only bona fide defense to a first-filed patent application should be a claim that the applicant was in fact not the inventor (or assignee); in other words, that the applicant derived the invention by illegal or immoral means from the true inventor.

Some critics of the proposed legislation have suggested that the first-to-file system would induce pirating of inventions and other chicanery to deprive the true inventors of their rights. Our opinion is that section 115 and section 136 of the bill, if properly implemented, would serve to defeat fraudulent filings. However, there is concern as to the manner in which these sections would be implemented. The inference is that an action for fraud and deceit, and/or perjury, would be brought in the U.S. district courts and, under the broad equity power of the court, a judgment against the fraudulent patentee would then result in a decree requiring the transfer of the patentee's rights to the true inventor, with damages and with fine and imprisonment as additive remedies. The proposed legislation is not clear in this respect. The legislative history of the bill, at the very least, should indicate the nature of the remedies intended to be provided.

Early publication is a desirable goal of the patent system. However, there are several useful alternatives to the basic proposal of S. 1042 calling for publication in every case within 18 to 24 months of the preliminary application. Some measure of discretion should be permitted the applicant as to the time when publication is made. The applicant should have the right at any time prior to publication to—

(1) Abandon the application and retain the invention in a non-disclosed status;

(2) Abandon the application and dedicate the nonexamined application to the public; or

(3) upon payment of a substantial fee and a showing of good cause, delay publication (but not examination) until the examination is completed and claims are allowed; but in such case, no infringement claim or royalties should be allowed as a result of manufacture of the invention prior to the issuance of the patent, or for any subsequent sale or use of items manufactured prior to issuance of the patent.

The proposed \$10 filing fee for preliminary applications is too low. All fees should be set at a level that both encourages legitimate filings and also discourages superfluous or ill-considered filings.

B. DEFERRED EXAMINATION

We note from Commissioner Brenner's previous statements that there is no immediate intent to institute a system of deferred examination, and that the Patent Office, by including provisions authorizing a system of deferred examinations, is merely seeking standby authority. We have no way of judging what the probable effects of such a

system might be. Certainly the experience of Holland provides little guidance for the United States. The proposal by Commissioner Brenner to institute such a system with respect to only a few classes of patentable matter at some time in the future, when deemed desirable, seems to be a sound approach. Practical effects of such a system could then be demonstrated without drastically affecting the entire patent system. The grant of such authority should be clearly spelled out and any decisions to adopt deferred examinations for general use in the Patent Office should be validated by Congress through the mechanism of a joint resolution or general legislation.

C. FEES

We are strongly opposed to any proposal that would permit the Patent Office to determine fee schedules for patent filings. This prerogative of Congress should not be delegated. In our opinion the holders of large portfolios of patents are reaping the greatest monetary benefits from patents and should, therefore, bear a large proportion of the total fees paid to the Patent Office. We recommend that a graduated structure of fees related to the total number of patents held or filings made, per annum, be incorporated into the fee structure. Partial payments of issue fees over the life of the patent are also desirable, and these should be graduated to reflect the size of the patent portfolio maintained. This would have a salutary effect in encouraging the dedication to the public of many patents either of small economic value or being maintained for defensive purposes.

D. JUDICIAL PROCEDURES

The element of high cost of litigation in relation to validity and infringement of patents, both offensive and defensive, is one of the primary problems facing the small manufacturer or small patentee. Present procedures are too cumbersome, too inefficient, and too slow to produce the results needed by the small business community. It is most disappointing that the Commission's report recommended so little to streamline judicial and administrative procedures.

There are now too many forums and too many levels of appeal in the present system. The present system of patent litigation in the U.S. district courts is grossly deficient. The great majority of judges in this court are disinterested in patent law and possess little or no expertise in scientific and technical matters. Considerable time and effort must be spent by the litigants to educate the judges. It often has been said that if a judge understands the technical details of an invention, he will find the patent invalid for obviousness; and, conversely, if he does not understand it, he will find the patent valid. Thwarting of justice by exploiting the defects of technical pleading under the common law spurred the adoption of the Federal Rules of Civil Procedure. An equally effective overhauling of judicial procedures affecting the patent system is necessary if we are to have sound decisions based on the merits.

We support the proposal of the American Bar Association which provides for a review of the Patent Office decisions only by the Court of Customs and Patent Appeals. This court would be divided into a

trial and appeals division. This should result in better, faster, and less costly decisions for the litigants.

We also support the concept that the prevailing party in litigation should recover, in appropriate circumstances, costs of litigation including legal fees. We recommend that section 285 of title 35 be amended by deleting the words "in exceptional cases," and by adding "where the court determines that the action or its defense was undertaken not in good faith or without probable cause." The legislative history of this change should reflect fully that its purpose is to encourage the courts to award costs and fees when it determines that patent litigation is undertaken by either party without reasonable cause, or for purposes of harassment.

E. DELAYS IN MARKETING DUE TO GOVERNMENT REGULATION

Section 154(c) of S. 1042 provides for an increase in the term of a patent when its issuance is delayed for national security reasons. However, there are other Government activities which affect the patentee's ability to derive reasonable profits from marketing of patentable inventions. Regulatory activities of agencies such as the Food and Drug Administration, Federal Aviation Agency, the U.S. Coast Guard, and a wide variety of other Federal, State, and local bodies cause many products to be banned from public sale or use until a license or other approval is obtained. We recommend that in such cases the patentee should have patent protection for a minimum period of 10 years from the first grant of such license or approval by any Government agency, and that appropriate changes to the language of section 154 be adopted.

F. HARMONIZING U.S. PATENT SYSTEM WITH PROPOSED INTERNATIONAL PATENT SYSTEM

Although we support the concept of a universal or multinational patent system, top priority should be given to building maximum strength into the U.S. patent system, upgrading it to its full potential, without regard to the requirements or procedures of any foreign country. From the standpoint of costs to small business, a sound enforceable universal patent is very desirable; but, since our larger interests are concerned with the marketing of products in the United States, the effectiveness and value of patents in our domestic economy is of considerable more importance. Instead of an international system, we suggest as a practical approach to the problem, that a multilateral system of agreements between countries having common political, economic, and social institutions should first be established. No recommendation of the President's Commission should be adopted merely because it would further the concept of an international patent system and any justification for legislation based on this premise should be discarded by the Congress.

G. ANTITRUST IMPLICATIONS

While real invention is still by and large the province of individual inventors and small business, these inventions have less and less opportunity to come to fruition in the hands of small business.

U.S. Government patent policy needs to be oriented more positively toward encouraging the success and proliferation of small and medium business in the consumer goods field. Fiscal, tax, antitrust, and patent policies, as well as the enforcement attitudes of the Government agencies administering these areas of the law, are all closely interrelated, and need to be strengthened in the interest of small business. Whenever remedial legislation appears, nominally directed against big business, small business almost inevitably bears the brunt of its effects. The application of antitrust concepts to the "patent monopoly" is, in our opinion, one of the classic examples of this rule. Attempts to remedy abuses of improper use of patents have generally resulted in the long run in cutting down the rights of the individual and small business but with no noticeable impact upon big business. For this reason we have some fears that even the changes and reforms of the patent system now being proposed may lead eventually to corrosion of the rights of the smalls.

Improper use of patents through patent pools and cross licensing, in concert with raw economic power, has placed out of bounds many areas of business where small business properly should be competing. The best hope for creative small business is that their rights be strengthened under the patent laws and that the antitrust laws be rigidly enforced.

Recommendations contained in the report of the Attorney General's National Committee to Study the Antitrust Laws (1955) with respect to compulsory licensing of interchanged and pooled patents have never been implemented either by legislation or enforcement policy. These pooled patents, together with large defensive patent portfolios and the threat of litigation, cause much concern to creative small businessmen. I might add parenthetically that, under the first-to-file system, companies seeking merely to establish their right to use an invention will be encouraged to publish, rather than to patent, the invention. This should serve to reduce the defensive patent portfolios of big business.

We concur in the analysis of the antitrust-patent situation in recommendation XXII of the report of the President's Commission. We recommend that implementing language be incorporated in whatever legislation is reported by the committee.

H. GOVERNMENT INFRINGEMENT OF PRIVATE PATENTS

It is most disappointing that the President's Commission failed to study or to make recommendations regarding small business' number one patent problem, Government infringement of privately-developed patents. This has been a matter of concern to the Congress and the procuring agencies since the Comptroller General's decision in 1957. This decision required infringement of private patents (under 28 U.S.C. 1498) in cases of advertised procurements for patented articles awarded to unlicensed sources. Many attempts have been made to obtain concurrence between procurement agencies regarding an appropriate mechanism to resolve the problem of infringement. We believe an acceptable compromise has been achieved which is now before Congress—H.R. 2898—introduced by Congressman Morris of New Mexico. We recommend that this bill be incorporated into the patent reform bill. It is our understanding that H.R. 2898 was developed in cooperation with the Bureau of the Budget and is acceptable to the executive

branch. Since the provisions of H.R. 2898 relate to general patent administration, it is appropriate to include them in patent reform legislation.

I. COMPUTER PROGRAMS

We disagree with the recommendation of the President's Commission that computer programs should not be patentable. The line of demarcation between computer "hardware" and "software" is becoming increasingly difficult to define. A body of ad hoc determinations should be developed by the Patent Office which, on an evolutionary basis, will provide criteria for patenting those aspects of computer programming traditionally associated with patentable inventions. Comparable expertise has been developed by the Patent Office in other "new" areas of technology.

J. PROTECTION FOR INDIVIDUAL INVENTORS

We urge that study be given to the recommendation of the American Society of Inventors that some form of general insurance protection be made available by the Government for nonassigned patents, to cover attorney's fees, and other costs incident to litigation involving validity or infringement of the patent. It is estimated that the cost of \$100,000 of insurance would be about \$50 per year per patent or \$500 for the life of the patent. We are advised that the average cost for litigating a patent is about \$50,000. Perhaps a worthwhile social and economic purpose would be achieved if the patentee were required to bear the first \$500 of such expense plus 10 percent of the balance, if he does not prevail in the litigation.

Another recommendation by the society worthy of study is that captive inventors be protected by discouraging outright assignment of their inventions. It is suggested by the society that the patent laws be amended to require all inventions to be licensed, rather than assigned, at minimum royalties of one-half of 1 percent for captive inventors and 3 percent for independent inventors. Of course the economic value of an invention introduced into a complex manufacturing and marketing operation is difficult to assess, but assessment is not impossible. Such a system in Germany has operated to benefit substantially many deserving inventors without unduly handicapping industry.

K. CONCLUSIONS

Our hope is that this committee and the Congress will proceed with deliberate speed to enact changes in the patent laws to correct the present unsatisfactory state of affairs relating to the interests of the inventor and small business. Without reform there will be increasing deterioration of incentive. It is incentive that triggers the flow of creation and enriches our Nation and its people.

I have some supplementary remarks as well, Mr. Chairman.

Subsequent to the preparation of my statement, I have had the opportunity to read and study the remarks of Commissioner Brenner presented yesterday to your committee.

The positions of compromise taken by Commissioner Brenner appear to be sound and well reasoned. Most of us have felt, since the patent reform bill was sent to Congress, that acceptable legislation

would result only if a middle ground between the recommendations of the President's Commission and the patent bar could be presented to Congress.

We believe that Commissioner Brenner has, in general, achieved a compromise position which can be supported by most interested parties. We support his statement and recommend his proposals to the committee.

Senator McCELLAN. Thank you.

Senator FONG. Thank you, Mr. Cappello. You have made a very fine presentation on behalf of the National Small Business Association. Thank you for appearing.

Dr. Forman, National Council of Patent Law Associations. Come forward, please.

Dr. Forman, you may proceed whichever way you desire.

STATEMENT OF HOWARD I. FORMAN, CHAIRMAN, NATIONAL COUNCIL OF PATENT LAW ASSOCIATIONS; ACCOMPANIED BY ANDREW R. KLEIN

Mr. FORMAN. Thank you. I first of all would like to thank the chairman and the members of the subcommittee, on behalf of the National Council of Patent Law Associations, for the privilege of appearing before you this afternoon.

Senator FONG. We are happy to have you with us this afternoon.

Mr. FORMAN. Thank you.

We have a statement which I request to be printed in the record in full.

Senator FONG. It will be so ordered. Do you want to highlight your presentation?

Mr. FORMAN. Yes, I would like that, Mr. Chairman. I am Howard I. Forman, a patent attorney employed by a corporation whose home office is in Philadelphia, Pa.

With me is Andrew R. Klein, an attorney engaged in the private practice of patent law in the city of Philadelphia, Pa.

My function here is that of chairman of the national council, and I would like to explain the nature of the organization for the reason which I will presently set forth.

Mr. Klein's appearance here is as chairman of the coordinating committee on the patent system of the national council.

The national council is a federation of 35 patent law associations. The identities of these 35 associations are set forth in the appendix to the statement. It is the first page just before the tabulated report.

Senator FONG. How many States are incorporated here?

Mr. FORMAN. In the appendix there is a table, and a cover to the table lists the 35 member associations. They include, I might mention, the American Bar Association's Patent Section, the American Patent Law Association, and 33 State or local patent law associations or the patent, trademark, and copyright committees of State bar associations of those States where there happens to be an integrated State bar.

I would like to explain the organizational background of the national council and its coordinating committee, and my purpose in doing this is to establish how the tabulated information was obtained

which has herewith been presented to the committee for your review and for the record.

The coordinating committee on the patent system consists of one delegate and one alternate appointed by each of the 35 member associations. Our present coordinating committee was specially organized in 1964 in recognition of a need to study our system of patent laws in depth. Our object was to develop guidelines and recommendations for improving and changing those laws.

Naturally, in view of this, when in 1965 President Johnson appointed the Commission on the patent system, the national council directed Mr. Klein, the chairman of the coordinating committee, to cooperate as fully as possible with that Commission. The services of the coordinating committee were immediately offered to the Commission, and all the way through the lifetime of the Commission's operation and thereafter the coordinating committee has furnished that cooperation whenever possible.

The coordinating committee and its member components, individually and collectively, have served in many ways by holding meetings throughout the country, correspondence with practitioners, with different associations, and in other ways, to gather information that might be useful to the Commission.

I would like at this point briefly to refer to a publication which appeared in a book called Patent Procurement and Exploitation. It is a publication of the proceedings of the First Annual Institute on Patent Law conducted by the Southwestern Legal Foundation in Dallas several years ago, and in particular the paper delivered there by Judge Giles S. Rich of the Court of Customs and Patent Appeals. The title of the paper was "Congressional Intent—or, Who Wrote the Patent Act of 1952?"

The interesting thing, which is now historical, of course, is that Judge Rich points to the fact that in 1949 there was recognized by what was then known as House Subcommittee No. 4 (I believe it is now No. 3) on Patents, Trademarks, and Copyrights, which was interested in the recodification of the various laws, that there was a need to amend and codify the patent laws at that time. Mr. Charles J. Zinn, who was the committee's law revision counsel, and Committee Counsel C. Murray Bernhardt asked Mr. P. J. Federico of the Patent Office if he would cooperate in furnishing advice and possibly prepare a first draft of an "overall patent revision bill."

Mr. Federico, with the permission of the Commissioner of Patents and the Bureau of the Budget, did this, and thereafter the National Council of Patent Law Associations was called upon to cooperate with both the House counsel and the Patent Office representatives, in the consideration of the problem, which ultimately led to the preparation of several drafts, and finally to the act of 1952.

At that time the National Council designated a coordinating committee very much like the one we now have, and a two-man drafting committee consisting of Messrs. Giles S. Rich and Paul Rose. They, and Mr. Henry Ashton, chairman of the National Council, worked closely with Mr. Federico and the Patent Office Advisory Committee of the Secretary of Commerce, in revising Mr. Federico's first draft. The full coordinating committee then "reworked" another draft

which the drafting committee together with Messrs. Federico, Zinn, and Bernhardt converted into a bill.

The bill, and copies of various drafts, were distributed to every interested association and every interested person in the United States was asked to send comments to the coordinating committee. Meetings to consider the drafts were held from coast to coast, and information developed which was fed back to the drafting group. The final product of that group then was reviewed by representatives of the Departments of Justice, Navy, Defense in meetings with Messrs. Federico and Rose, and the House committee counsel. After all this a bill was introduced and hearings held, and the normal legislative process followed until the Patent Act of 1952 resulted.

The important point to note, Senator, was that the Government people worked very closely with the patent bar before any bill was introduced, and full and open cooperation of the Government and the private sector led to the Patent Act of 1952. That was significantly different from the present situation when the patent bar and others were permitted to know what the Government people were contemplating only after S. 1042 was introduced.

I might also say that there have been other coordinating committees designated by the national council for similar purposes. For example, the Trademark Act of 1946, the Lanham Act, was greatly contributed to and participated in its preparation by a similar committee. In each case, the patent bar, such as is represented by the National Council of Patent Law Associations, has worked hand in hand with the Congress and the executive branch in the development of new legislation, gladly, willingly, and openly.

Now, getting back to the President's Commission's operations, after 12 or 18 months of its deliberations following its establishment by President Johnson, a report of the Commission was issued on or about December 16, 1966, and at that time the President publicly directed the Secretary of Commerce, the Attorney General, and the President's Science Adviser to consider it carefully, and if necessary to develop legislative proposals to carry out its objectives. The President invited the public, persons having constructive suggestions regarding the recommendations in the report, to forward them to the three heads of those executive branch departments.

The national council, acting promptly in response to that open invitation, just 5 weeks later, on January 23, 1967, met here in Washington to analyze the report and to offer constructive suggestions with regard thereto.

In preparation for that meeting, all the member associations were asked to study the report in depth, and instruct their representatives to state as constructively as possible the views of their respective associations regarding each recommendation set forth in the report.

At the meeting, after a certain amount of deliberation which took several hours, it became quite obvious, Senator, that it would be impossible, in a brief period of time, to come up with the type of constructive recommendations that the President had openly solicited.

Realizing this, a resolution was passed by the council meeting that day calling upon its chairman, my predecessor, to write a letter to President Johnson, and to each of those three secretaries or department heads, and request that a 6-month "deferment" from the date of

the publication of the report or until May 16, 1967, be granted. The request was for a sort of moratorium, asking that no legislation be introduced until that date, in order to give the patent bar a chance to do what it had always done in connection with every other important piece of patent, trademark legislation, namely, to openly cooperate with the Patent Office and with the congressional and other governmental people who were working in this area.

Such a letter was sent to the President. It is reproduced in our formal statement, as is the reply which came from the Secretary of Commerce, who indicated he was replying at the request of the President. He explained in the letter that for various reasons it did not seem expedient at that time to defer the action, and that they would have to go forward with the program. And so it was that just 3 weeks later, S. 1042 was introduced.

Having thus failed in its earnestly sought opportunity to cooperate openly and vigorously with the President and the Congress, the national council nevertheless proceeded exhaustively to study S. 1042, and to examine with corresponding care each and every bill to revise the patent laws, which has since been introduced in the Senate and in the House.

Senator FONG. May I ask you how much help did your association give to the drawing up of S. 1042?

Mr. FORMAN. To my knowledge, Senator, none. The bill was introduced without any request, as far as I know, to any association to help draw it up. About the only opportunity to participate in its preparation—and this was extremely remote and indirect—came whenever the President's Commission asked for information from the patent bar on specific points. On each such relatively rare occasion there was information communicated to the President's Commission. This was done I think mostly by letter, by questionnaire, Mr. Klein tells me. He was directly responsible for gathering the requested information and communicating it to the Commission.

Senator FONG. So all the work that your association did prior to the drawing up of the bill S. 1042 was to consult with the members of the Commission, is that correct?

Mr. FORMAN. To hold ourselves in readiness and to answer questions in the form of questionnaires, yes. But never were we—nor any other group or persons outside the members of the Commission—privileged to sit in on any of the Commission's deliberations, or to review and comment on any of its preliminary views. We were "shut out" and prevented from participation other than to volunteer ideas and to answer questions.

Senator FONG. And you did answer the questions of the Commission?

Mr. FORMAN. Yes. In this regard, Senator, it is desired to express appreciation to the chairman and members of this Senate subcommittee who, obviously in recognition of the need for a reasonable amount of time to study in depth the complex proposals for revising the patent laws as are represented in S. 1042 and other bills, saw fit to defer until now the continuance of the hearings which were begun in the spring of 1967. As a result, the patent bar represented by national council's 35 member associations, has met many times in committees, and in open meeting of their entire memberships, and almost all of the associations have now been able to formulate firm views and adopt stated positions

with regard to the proposed legislation which you now have under consideration.

This, of course, I realize is quite apparent to you now, because you have heard testimony from the American Bar Association, the American Patent Law Association, and certain local patent law associations, and it must be self-evident that much work has been done with the benefit of the grace period which this committee has provided.

Now, getting back to the function of the national council, the objective primarily has been to spur on those of its member associations, which had not already done so of their own accord, to finalize their reviews of the pending bills and to go on record stating their positions with regard thereto.

This phase of its objective was culminated just last week, at an open meeting held here in Washington.

I would like to explain what happened leading up to that meeting.

Each member organization of national council is entitled to designate one of its members as its authorized representative, one man who is called the councilman, who can participate, vote at these meetings, and so forth. Also at this meeting were members of national council's coordinating committee headed by Mr. Klein, whose composition I explained previously. As part of the requirement for participating in the meeting, each association was asked first to hold its own deliberations, to go into the problems of the various bills in such depth as they possibly can. They were asked to resolve their views, to adopt positions if the would; to say that "We are for this bill, against that bill, or we would like to modify one bill or another by making certain changes," and to state them specifically for our record.

These statements were submitted to me by mail in advance of the meeting, and from them we were able to extract the data which were incorporated in the first draft of the table attached to our statement.

SENATOR FOXG. Did you consider every bill that was before this committee?

MR. FORMAN. In a way, yes. We did not take up each bill and openly discuss each point it contains, and so forth. We asked each association to consider every bill that it thought was pertinent. They did not have to actually specify that "we have considered this bill and we are against it." But, by implication, if they said that of all the proposed legislation they have considered they favor "this" or "that" bill, then by inference they must have been opposed to the other bills, or opposed to sections of the bills if they approved only certain sections in some bills.

Now, then, at this meeting last week, these various councilmen representing their associations were able to review the statements as have been summarized in the table, to amend them where necessary and to bring them up to date. As a matter of fact, even after the meeting I received a phone call, just Monday of this week, from one association which had to go before its State bar in order to get approval, and they reported as of that day that a definite position had been adopted. It has been incorporated in the table.

In view of the fact that you can now understand the nature of the organization of National Council, you can appreciate why, unlike a

(Note.—Since the date of this testimony other member associations, which previously had not stated their positions for this record, have given their reports to Mr. Forman and their positions have been included in the tabulated data of the statement.)

single member organization, we do not report a single position or view concerning any of the bills. In fact, rather than to report what would amount to a consensus of the membership of the entire organization, since the council consists of 35 independent entities we have presented in tabular form their 35 separate positions. The report speaks for itself. I have not attempted to summarize or give totals of any sort, because a determination of their collective views becomes self-evident when you look at the data. But I can briefly say this, as a matter of convenient reference, perhaps.

It is clear that one bill is overwhelmingly favored, and that is S. 2597. In soliciting and reporting the data there had been some confusion to this extent. Some of the organizations adopted their positions prior to the Honolulu meeting, to which reference was made here earlier, of the American Bar Association, at which time a certain number of amendments to S. 2597 were promulgated. As a result, these associations in some cases had to report that they favor S. 2597 as is. Others came in later and said, "We favor it with the Honolulu amendments."

We have separate tables indicative of these two views, and the only reason we did so was for the purpose of keeping our record factually correct.

There are other associations which have reported support for S. 2597 and expressed an option, a preference. They said that if they had their way, although they favored the bill as it is, they would like to see certain other amendments or variations, and we have indicated in still another table what provisions in S. 2597 they would like to see changed, if possible.

We have not in every case spelled out the preferences, but merely indicated the sections or provisions in which it was desired that changes be made. One reason for this is that we have supplied the Commissioner of Patents with a complete set of all the statements submitted to us by the member associations. This set was given to the Commissioner so that he may have more detailed information concerning the views of the various associations, to use as he sees fit.

Finally, another group said, "We would agree to S. 2597 but only on condition that it would have certain additions or changes." Such positions have been put in another column of the table. That is about as far as I think I can go in summarizing what these 35 separate associations have said.

Now, so much for the historical accounting of what led up until the present. I think that a very significant development has taken place just very recently. It is going forward now, and I wish to describe it briefly. In doing so, I would like to express our very deep appreciation to Commissioner Brenner, who is making possible the new development that I am now about to describe.

Prior to the meeting of the national council, which took place last week, in discussion with the Commissioner he made it very clear that he wishes to have the full and open cooperation of the patent bar in resolving such differences of views and positions which may yet appear to exist between the Patent Office or the administration and the patent bar after these hearings have been held. I know we certainly shared and strongly encouraged that sentiment. It is our feeling that if such differences can be narrowed down to an irreducible minimum, if not

eliminated altogether, by such joint consideration and action, this Senate subcommittee will be better advised as to the particular revisions to the patent laws which may best accomplish the unchallenged, highly laudable objectives specified by the President's Commission in its report.

Well, now, consistent with this spirit of mutual cooperation, the Commissioner, in response to an invitation which we extended on behalf of the national council, personally and with his Assistant Commissioner and other assistants responsible for patent legislative affairs, sat in on a major portion of our meeting last week. At that meeting, too, we were privileged to read a letter from him to National Council, in which he invited us to meet with him and his staff shortly after these hearings, to see if we couldn't work out some of the problems. It was a frank and open invitation to work closely with the Patent Office to develop the new laws and the necessary procedures, the procedures necessary for the future welfare of the American patent system.

Needless to say, Senator, we were honored and delighted, and we unanimously accepted his very kind invitation. A date has been set for February 16. We are to meet there at an all-day meeting, and see just how much of the spadework can be done working together in this way.

Mr. Chairman, I say to you and to the members of this subcommittee it should be obvious from the foregoing that the patent bar, as represented by the 35 member associations of the National Council of Patent Law Associations, has, from the earliest days, when thoughts were first given to the need for revising our patent laws, been working diligently and cooperatively to assist our Government in satisfactorily accomplishing that objective.

This effort, as I have pointed out, began even before, has continued during the operation of the President's Commission on the patent system, and certainly has been proceeding with tremendous vigor since the Commission's report was published. The President had expressed the wish that such cooperation would be given to those persons in the executive branch charged with the responsibility of implementing the recommendations of his Commission. Now that Commissioner Brenner has made it possible to give that cooperation under the very best of circumstances, in open meetings with the Patent Bar, it is expected that the end result will come closest to what the President, his Commission, and the Members of Congress will agree is in the best public interest.

In a speech which has been referred to earlier this morning, made by Assistant Secretary of Commerce John F. Kincaid on January 24, 1968 to the American Patent Law Association, Dr. Kincaid announced certain significant departures from the administration's previous position as deflected in S. 1042. And of course only yesterday Commissioner Brenner in his testimony before the subcommittee spelled out these departures in considerable detail. Dr. Kincaid pointed out that there yet remains some differences between the administration's revised position and those of the patent bar. But he said: "Because there is agreement on objectives, these differences, in my view, can and will be ironed out."

To iron them out he further declared :

I have personally requested the Commissioner of Patents to work both with the organized patent bar and interested business and scientific organizations, and with congressional committees, in an all-out effort to reach agreement on the best way to modernize the patent system and to assure that it will be an effective instrument for progress in the decades ahead.

On behalf of the National Council of Patent Law Associations, I wish to express deep appreciation to Dr. Kincaid for his fine leadership in setting the new administration policy indicated in the statement just quoted.

Similar appreciation is expressed to Commissioner Brenner for taking the initiative to so promptly call together the patent bar, as represented by the national council, and launch the all-out effort called for by Dr. Kincaid. We of the patent bar stand ready to do our part and will cooperate in every way reasonably possible to reach the agreement urged by Dr. Kincaid. Together I feel sure we should be able to reach a reasonable, workable accord on most issues, which can then be reported to this subcommittee for further legislative consideration.

I thank you.

Senator FONG. Mr. Forman, considering that you were not given the 6 months' delay that you asked for, and with the intervening time that has elapsed since then, do you feel that you have had enough time to study the legislation?

Mr. FORMAN. Yes, sir. I think that more time could always be useful to do a great deal more study and work, but I certainly would say that in the time which has elapsed, a very considerable amount of work has been accomplished. By and large, all things considered, I would say that we have had a reasonable amount of time to study the legislation, and now need only the time to work with the Patent Office and the Congress to help convert concepts into good legislation.

Senator FONG. You will have another meeting in February with the Commissioner, is that correct?

Mr. FORMAN. That is correct.

Senator FONG. At that time will you be able to finalize, would you think?

Mr. FORMAN. I cannot predict whether we will finalize anything, but hopefully we will bring the minds of all concerned closer together on the issues that yet remain. I doubt whether anyone, even the Commission, can predict how soon an acceptable "fine product" will be produced. But we will do our best to make rapid progress in that direction.

Senator FONG. Mr. Forman, I want to thank you for presenting such a very fine statement to us and for your cooperation with the Commission and the other branches of Government in trying to work out a solution to this very important bill.

Thank you, Mr. Forman.

Mr. FORMAN. Thank you, Senator.

(The prepared statement of Mr. Forman follows:)

STATEMENT BY HOWARD I. FORMAN ON BEHALF OF THE NATIONAL COUNCIL OF
PATENT LAW ASSOCIATIONS

Mr. Chairman, aid members of the Senate Subcommittee on Patents, Trademarks and Copyrights. I am Howard I. Forman, a patent attorney employed by a corporation whose home office is in Philadelphia, Pa. With me is Andrew R. Klein, an attorney engaged in the private practice of patent law in Philadelphia, Pa.

We appear before this Subcommittee on behalf of the National Council of Patent Law Associations, an organization whose membership consists of 35 patent law associations (or sections of state bar associations in certain states having an integrated bar). A list of those 35 associations is appended hereto.

My capacity is that of Chairman of the National Council of Patent Law Associations. Mr. Klien's capacity is that of Chairman of the National Council's Coordinating Committee on the Patent System. The organization and operation of the National Council and of its Coordinating Committee are as follows. Each member association is authorized to appoint one of its members to serve an indefinite term as Councilman. Since the National Council is a federation of 35 separate and autonomous organizations, its Articles of Organization specify that no vote of the National Council shall be binding on any of its member associations, and to member associations shall be regarded as bound by the vote of its Councilman at a meeting of the National Council. With these limitations in mind, the following quotation of Article II, Section 1, of the Articles of Organization will clearly specify National Council's function :

"1. It shall be the duty of the National Council :

"(1) to give consideration to any and all matters in which the patent profession is interested and to bring about cooperation between the affiliated associations represented by National Council members :

"(2) to keep the associations represented by Council members informed with respect to all matters relating to legislation pending before Congress which may be of interest to the patent profession and its clients, and to supply to said associations copies of relevant material with respect thereto :

"(3) To take such action as it shall deem expedient in reporting to the affiliated associations data obtained by it reflecting the views of the patent bar ; and

"(4) to represent where appropriate positions and points of view of affiliated associations on matters of interest to the patent profession and its clients."

The National Council's Coordinating Committee on the Patent System consists of one delegate and one alternate appointed by each of the 35 member associations. It was specially organized in 1964 in recognition of a need to study our existing patent laws in depth, with the object of developing guidelines and recommendations for improving and changing those laws. In 1965, when President Lyndon B. Johnson appointed the Commission on the Patent System, Mr. Klein was directed by the National Council to have his Coordinating Committee cooperate as fully as possible with that Commission, and the Coordinating Committee did so in various ways. It immediately offered its services to the Commission and, whenever the Commission requested the Coordinating Committee to obtain from the committee members and from the member associations of the National Council views and advice regarding certain proposals or points of patent law and practice, the Coordinating Committee responded promptly and without reservation of its time and energies. The Coordinating Committee also has, in open meeting and by correspondence, analyzed and discussed the various bills to revise the patent laws which are now before the Senate and House, and has presented to the member associations of the National Council an extensive written report thereof. That report has served to focus attention of the members of the National Council on the numerous issues, the various legislative proposals, various pros and cons concerning same, and in other ways to help guide the member associations in their deliberations.

When, after 12-18 months of deliberations following its establishment, the Report of the President's Commission to Study the Patent System was issued on or about December 16, 1966, President Johnson directed the Secretary of Commerce, the Attorney General, and his Science Advisor to consider it carefully and, if necessary, to develop legislative proposals to carry out its objectives. The President invited persons having constructive suggestions regarding the recommendations in the Report to forward them to those three heads of Executive Branch departments.

Acting promptly in response to that open invitation, the National Council of Patent Law Associations called together its members in an open meeting held in Washington on January 23, 1967 to analyze the Report and to offer constructive suggestions with regard thereto. In preparation for that meeting all member associations were asked to study the Report in depth and instruct their representatives to state, as constructively as possible, the views of their respective associations regarding each recommendation set forth in the Report. At the meeting it became very clear that many of the problems were so complex that some months of serious study would have to be given them in order to furnish the President the type of constructive advice he had publicly solicited. Accord-

ingly, a resolution was adopted requiring the Chairman of the National Council to petition the Executive Branch for deferral until May 16, 1967 of the submission to the Congress of any bills purporting to implement the proposals in the Report. The request for such deferral was predicated on the need to give the National Council and all of its member associations throughout the country, as well as other interested parties, an opportunity to study the report thoroughly and make useful recommendations in the public interest. Acting in accordance with the resolutions, the following letter was sent to President Johnson:

NATIONAL COUNCIL OF PATENT LAW ASSOCIATIONS,
Washington, D.C., January 26, 1967.

The PRESIDENT,
The White House,
Washington, D.C.

DEAR MR. PRESIDENT: The National Council of Patent Law Associations is an organization comprising more than thirty-five patent law associations and patent sections of various bar associations. The members of the Council are of course vitally interested in the many recommendations contained in the report of the President's Commission to Study the Patent System. Many of those recommendations would, if adopted, bring about fundamentally important changes in the nature and operation of our patent system. Most of our member associations are now engaged in careful study of the Commission's report and recommendations, and it is our hope that we can develop our positions fairly representing the views of the Patent Bar. Here I may say that while the Patent Bar in previous years could properly be criticized as overly conservative and opposed to change, it has now become evident that the majority of the Patent Bar understand and appreciate the necessity of making sure that our patent system is in tune with the realities of our modern society and that undoubtedly the system can be improved.

However, it will require some months of study, discussion, and review before we can explore and develop the views of the Patent Bar as a whole. At a meeting of the Council held on January 23 those matters were discussed, and I was instructed to write you to request that the introduction of legislation on behalf of the Administration, having to do with the recommendations of the Commission, be delayed until May 16 of this year, six months after the first publication of the Commission's report. We sincerely hope that in the intervening weeks the Patent Bar can make a valuable contribution. It has already become apparent that while the Patent Bar generally agrees with the objectives of certain of the recommendations, those recommendations stand in need of amendment and reshaping in order to render them more effective in achieving the state objectives. It is also fair to say that some of the recommendations appear unwise and that it would be good policy to have the opposing views considered prior to the submission of legislation to the Congress.

In connection with the latter point, I have also been instructed to inquire whether the Commission would consider publishing documentation for its various recommendations, the feeling being that if such material were made public, those interested in the problems of the patent system would be better able to understand the basis of the reasoning which led to the conclusions and recommendations reached by the Commission.

Respectfully,

HERBERT P. KENWAY, *Chairman*.

A reply to this letter was received, as follows:

THE SECRETARY OF COMMERCE,
Washington, D.C., February 6, 1967.

HERBERT P. KENWAY, *Esquire*,
Chairman, National Council of Patent Law Association,
Boston, Mass.

DEAR MR. KENWAY: The President has asked me to respond to your letter of January 25 in which you request that legislation based on the recommendations of the President's Commission on the Patent System be delayed until May 16 of this year.

As you know, in releasing the Commission's report on December 2, the President referred it to his Science Advisor, to the Acting Attorney General and to the Secretary of Commerce for their review and recommendations. Since implementation of many of the Commission's recommendations would require amend-

ment of the patent laws, this review necessarily involves the drafting and consideration of various legislative proposals. Thus far, however, no final decision has been reached on what will be recommended to the President.

On the other hand, it is difficult to see what would be gained by deferring submission of legislation to the Congress until midway through the first session of the present Congress. The public members of the Commission, all recognized leaders in their respective areas, were chosen to represent the various sectors of our economy served by the patent system. Not only were members of the patent bar on the Commission, more importantly, through its various committees and associations, the organized patent bar contributed greatly to the formulation of the Commission's recommendations. Moreover, the more far-reaching of the Commission's recommendations have been studied and debated by the patent bar for a number of years. The Commission in its deliberations weighed carefully these studies and considered fully the arguments for and against each recommendation which was proposed.

If legislation based on the Commission's report were introduced, the patent bar would have ample opportunity and indeed an overriding responsibility to appraise the legislation and to present its views on the legislation to the Congress. For all of these reasons, I would be reluctant to recommend that any legislation based on the Commission's recommendations be deferred until the date you suggest.

On the question of documentation of the Commission's recommendations, there are no present plans to publish any additional materials. Extensive bibliography and published studies which formed a basis for many of the Commission's recommendations have been turned over to the Office of Legislative Planning of the Patent Office, and are available to interested persons.

We appreciate very much your interest in the Commission's report, and I am sure we share identical goals: to strengthen the Patent system and to modernize it to cope with the challenges foreseeable in the decades ahead.

Sincerely yours,

A. B. TROWBRIDGE,
Acting Secretary of Commerce.

Having thus failed in its earnestly intended efforts to cooperate with the President, through the three members of his Cabinet designated for that purpose, the National Council nevertheless proceeded exhaustively to study the Administration's bill, S. 1042, immediately upon its introduction on February 21, 1967, and to examine with corresponding care each and every bill to revise the patent laws which has since been introduced in both the Senate and the House. In this regard it is desired to express appreciation to the Chairman and members of the Senate Subcommittee on Patents, Trademarks and Copyrights who, obviously in recognition of the need for a reasonable amount of time to study in depth these complex bills, saw fit to defer until now continuance of its hearings on those bills which were begun in the spring of 1967. As a result, the patent bar represented by the National Council's 35 member associations has met many times in committees, and in open meetings of their memberships, and almost all of the associations have now been able to formulate firm views and adopt stated positions with regard to the proposed legislation which you now have under consideration.

The objective of the National Council of Patent Law Associations primarily has been to spur on those of its member organizations, which had not already done so of their own accord, to finalize their reviews of the pending bills and to go on record stating their positions with regard thereto. This phase of its objective was culminated on January 23, 1968 at an open meeting in Washington, D.C. of the members of the National Council. Prior to that meeting each Councilman was requested to file with the Chairman a written statement summarizing the stated position of the member association which he represents, setting forth which if any of the pending bills is endorsed by his association. In stating such endorsement the Councilmen were requested to indicate whether it constituted a position formally adopted by or on behalf of his entire association, or if its board of governors (or managers), or of its legislative committee. The Councilmen were further requested to specify whether the endorsement of a bill was for the bill as introduced, or if the endorsement was conditioned upon certain amendments being made. Expressions of preferences for amendment, as opposed to conditions for endorsement, also were solicited.

At the meeting on January 23, 1968 a tabulation of the statements thus filed with the Chairman, and tabulated by him was reviewed. Each Councilman

present thus had an opportunity to indicate whether the summary of his earlier filed statement had been properly set forth in the tabulated account, and to indicate the need for corrections or modifications. The thus verified tabular summaries, duly corrected by the Chairman, appear in the chart annexed to this statement.

No attempt has been made to submit totals or percentages indicating how many of the associations favor one bill or another, since even the one bill (S. 2597) which obviously is the basic form of proposed legislation overwhelmingly preferred is, nevertheless, subject to a number of varying further preferences. As will be seen by reference to the chart, some associations favor S. 2597 as it now stands. Others favor S. 2597 if amended to include a number of additions and/or deletions which are identified as the "Honolulu amendments" due to the fact that they were proposed at a meeting in Honolulu of the American Bar Association's Section of Patent, Trademark and Copyright Law in 1967. Still others would favor S. 2597 with the Honolulu amendments, but further subject to the proviso that additional, specified amendments be made thereto. Practically all, either by expressing a preference for some version of S. 2597 or by an express statement to that effect, have indicated opposition to S. 1042 and all other pending bills on patent law revision. A few, which are members of integrated state bars, have adopted positions favoring some version of S. 2597, but must withhold formal expression of those positions until approved by their state bar organizations. A very few have as yet adopted no formal position.

The foregoing account of the background leading to the tabular accounting of the views of the 35 member associations, and the factual reporting of their individual stated positions, concludes the statement which I, as Chairman, have been duly authorized to present to this Senate Subcommittee by the Councilmen and officers of the National Council who were convened at the aforesaid meeting on January 23, 1968. However, there is an important development which stemmed from proceedings during that meeting and is now moving forward which I believe this Senate Subcommittee will want to know about in connection with its deliberations following the hearings which it is holding on January 30, 31 and February 1, 1968.

Prior to the meeting of the National Council on January 23, 1968, in discussions which I had with the Commissioner of Patents, Edward J. Brenner, it was made very clear that the Commissioner wishes to have the full and open cooperation of the patent bar in resolving such differences of views and positions which may appear to exist between the Patent Office and the patent bar after the said hearings have been held. I certainly shared and strongly encouraged that sentiment. It is our feeling that if such differences can be narrowed down to an irreducible minimum, if not eliminated altogether, by such joint consideration and action, the Senate Subcommittee will be better advised as to the particular revisions to the patent laws which may best accomplish the unchallenged, highly laudable objectives specified by the President's Commission in its Report.

Consistent with this spirit of mutual cooperation the Commissioner, in response to an invitation extended on behalf of the National Council, personally and together with his Assistant Commissioner and other assistants responsible for patent legislative affairs, sat in on a major portion of the all-day meeting held by the National Council on January 23, 1968. At that meeting I was privileged to read a letter from Commissioner Brenner in which he invited the members of the National Council to meet with him and his staff shortly after the hearings were concluded in order to discuss the proposed legislative changes. In extending his invitation the Commissioner stated:

"Speaking on behalf of the Patent Office, I wish to say that we certainly agree with you that it is most important at this particular time for the Patent Office and the patent bar to work closely in the development of new laws and procedures necessary for the future of the American patent system."

The Councilmen present unanimously voted in favor of accepting that invitation, and a date has already been set for our first joint meeting, namely February 16, 1968, at the Patent Office. I fully expect tremendous forward strides to be made at that and any subsequent such meetings, for such frank and open cooperation is clearly the best way to understand differences and to resolve them.

Mr. Chairman and members of this Senate Subcommittee, it should be obvious from the foregoing that the patent bar, as represented by the 35 member associations of the National Council of Patent Law Associations, has from the very earliest days, when thoughts were first given to a need for revising our patent laws, been working diligently and cooperatively to assist our government in satis-

factorily accomplishing that objective. This effort began even before, has continued during the operation of the President's Commission on the Patent System, and certainly has been proceeding with tremendous vigor since that Commission's Report was published. The President had expressed the wish that such cooperation would be given to those persons in the Executive Branch charged with the responsibility of implementing the recommendations of his Commission on the Patent System. Now that Commissioner Brenner has made it possible to give that cooperation under the best possible circumstances, in open meetings with the patent bar, it is expected that the end result will come closest to what the President, his Commission, and the members of Congress will agree is in the best public interest.

In a speech which Assistant Secretary of Commerce John F. Kincaid delivered on January 24, 1968 to the American Patent Law Association, he announced certain significant departures from the Administration's previous position as reflected in S. 1042. He pointed out that there yet remained some differences between the Administration's revised position and those of the patent bar, but, he said, *"because there is agreement on objectives, these differences, in my view, can and will be ironed out."* (Emphasis supplied.) To iron them out, Dr. Kincaid further declared:

"I have personally requested the Commissioner of Patents to work both with the organized patent bar and interested business and scientific organizations, and with Congressional committees, in an all-out effort to reach agreement on the best way to modernize the patent system and to assure that it will be an effective instrument for progress in the decades ahead."

On behalf of the National Council of Patent Law Associations, I wish to express deep appreciation to Dr. Kincaid for his fine leadership in setting the new Administration policy indicated in the statement just quoted. Similar appreciation is expressed to Commissioner Brenner for taking the initiative to so promptly call together the patent bar, as represented by the National Council, and launch the all-out effort called for by Dr. Kincaid. We, of the patent bar, stand ready to do our part and will cooperate in every way reasonably possible to reach the agreement urged by Dr. Kincaid.

AMENDMENTS TO THE IDENTICAL BILLS INTRODUCED BY SENATOR DIRKSEN (S. 2597) AND CONGRESSMAN POFF (H.R. 13591) WHICH WERE PROPOSED AT 1967 MEETING OF AMERICAN BAR ASSOCIATION, PATENT, TRADEMARK, AND COPYRIGHT SECTION, AND APPROVED IN PRINCIPLE BY THE AMERICAN BAR ASSOCIATION HOUSE OF DELEGATES

(All page and line references are to the Dirksen bill, S. 2597)

On page 11 following line 10, insert the following new Section:

"(g) The term 'actual filing date in the United States' means the earliest date of filing of an application in the United States to which an applicant is entitled."

In lines 11 and 13, Subsections (g) and (h) should be reinitialled as Subsections (h) and (i).

In line 16, the word "thereof" is deleted.

In line 26, the word "sold" is deleted and the words "on sale" substituted.

In line 28, insert a semicolon at the end and add the word "or".

Following line 28, insert the following new Subsection:

"(5) Subject matter for which the applicant has no right to secure a patent because the inventor named in the application did not himself invent it or because before his invention thereof, the invention was made in this country by another who had not abandoned, suppressed or concealed it."

On page 12, line 40, delete the word "refutes" and substitutes the word "negates".

In line 41, strike the words "after the effective filing date thereof" and insert the words "within the meaning of Section 102 (e), 136 or 137 of this Title."

On page 15, line 31, strike the words "by the same inventor".

On page 16, line 30, insert after the word "prior" "copending".

On page 17, line 31, change the period to a comma and add the following: ", except that applications may be examined out of turn under special circumstances established by the Commissioner by regulation."

In line 30, after the word "allowable" insert "pending".

In line 34, after the word "said" insert "pending".

Following line 39, as a part of Subsection (a) add the following:

"A final judgment adverse to a patentee from which no appeal has been or can be taken shall constitute cancellation of the claims involved from the patent and notice thereof shall be indorsed on copies of the patent thereafter distributed by the Patent Office."

On page 20, line 7, delete the words "or his successor in title,".

In line 11, delete " , or his successor in title," and insert "or patentee".

On page 26, in lines 35 and 36, delete "The Patent Office is hereby established as the sole governmental agency to grant a license or establish a general license."

On page 27, following line 4, insert the following new Subsection:

"(b) The Patent Office is hereby established as the sole governmental agency to grant a license or establish a general license."

In lines 5, 8, and 14, redesignate Subsections (b), (c), and (d) as (c), (d), and (e).

On page 28, line 28, correct the spelling of the word "unexpired".

Following line 29, insert the following Subsection:

"(b) The Commissioner may issue several reissued patents for distinct and separate parts of the thing patented, upon demand of the applicant, and upon payment of the required fee for a reissue of each of such reissued patents."

In line 30, redesignate Subsection (b) as (c) and delete "of chapter 12, 13, and 14".

On page 29, redesignate Subsection (c) as (d).

On page 32, line 31, delete "a contributory" and insert "an".

In line 37, delete "contributory".

On page 33, line 2, delete "contributory".

In lines 3 and 4, delete "or contributory infringement."

Following line 19, add "291. Interfering patents."

Page 34, lines 39 and 40, delete "less than the infringer's profits attributable to the infringement, or".

Page 35, line 1, delete "whichever shall be greater,".

Line 5, delete "how his" and insert "what".

Page 36, after line 33, add a new Section as follows:

"Section 291. Interfering Patents

"(a) The owner of an interfering patent may have relief against the owner of another by civil action, and the court may adjudge the question of the validity of any of the interfering patents, in whole or in part. A final judgment adverse to a patentee from which no appeal or other review has been or can be taken or had shall constitute cancellation of the claims involved from the patent, and notice thereof shall be endorsed on copies of the patent thereafter distributed by the Patent Office.

"(b) A civil action under subsection (a) may be instituted against the party in interest as shown by the records of the Patent Office, but any party in interest may become a party to the action. If there be adverse parties residing in a plurality of districts not embraced within the same state, or an adverse party residing in a foreign country, the United States District Court for the District of Columbia shall have jurisdiction and may issue summons against the adverse parties directed to the marshal of any district in which the adverse party resides. Summons against adverse parties residing in foreign countries may be served by publication or otherwise as the court directs. The Commissioner shall not be a necessary party but he shall be notified of the filing of the civil action by the clerk of the court in which it is filed and shall have the right to intervene."

Page 42, following line 19, add the following new Subsection:

"(d) For purposes of considering appeals involving applications specified in Subsections (b) and (c) of this Section, the jurisdiction of the Court of Customs and Patent Appeals shall be governed by the provisions of Section 1542 of Title 28, United States Code, in effect immediately prior to the effective date of this Act."

Line 20, redesignate Subsection (d) as (e).

MEMBER ORGANIZATIONS COMPRISING THE NATIONAL COUNCIL OF PATENT LAW ASSOCIATIONS

1. American Bar Association, Patent Section
2. American Patent Law Association
3. Boston Patent Law Association
4. Central New York Patent Law Association
5. Patent Law Association of Chicago
6. Cincinnati Patent Law Association
7. Cleveland Patent Law Association
8. Columbus Patent Association
9. Connecticut Bar Association, Patent and Trademark Section
10. Connecticut Patent Law Association
11. Dallas-Fort Worth Patent Association
12. Dayton Patent Law Association
13. Bar Association of District of Columbia, Patent Section
14. Eastern New York Patent Law Association
15. Houston Patent Law Association
16. Indiana State Bar Association, Patent Section
17. Patent Law Association of Los Angeles
18. Michigan Patent Law Association
19. State Bar of Michigan, Patent, Trademark and Copyright Law Section
20. Mid-Hudson Patent Law Association
21. Milwaukee Patent Law Association
22. Minnesota Patent Law Association
23. New Jersey Patent Law Association
24. New York Patent Law Association
25. Ohio State Bar Association, Patent, Trademark and Copyright Law Committee
26. Oregon Patent Law Association
27. Philadelphia Patent Law Association
28. Patent Law Association of Pittsburgh
29. Rochester Patent Law Association
30. San Diego Patent Law Association
31. Patent Law Association of San Francisco
32. St. Louis Bar Association, Patent Section
33. Texas State Bar Association, Patent, Trademark and Copyright Section
34. Toledo Patent Association
35. Washington State Patent Law Association

FORMALLY STATED POSITIONS RE PATENT LAW REVISION BILLS (S. 2597 (H.R. 13951) AND OTHERS INTRODUCED IN 90TH CONG.) BY EACH MEMBER ASSOCIATION OF THE NATIONAL COUNCIL OF PATENT LAW ASSOCIATIONS

Code No. (alphabetical listings)	Member associations	Positions stated are those of —	Bill(s) favored		Although S. 2597 (H.R. 13951) acceptable "as is" or with Honolulu amendments, if possible to advocate specific revisions would modify following sections	Other remarks
			S. 2597 (H.R. 13951)	Other		
			"As is"	Honolulu		
1 ABA	Association	do	X			
2 APLA	do	do	X*			
3 Boston						
4 Central New York	Association	X	X		100(h)4; 154, 284	*Position of the APLA is set forth in resolutions duly adopted prior to introduction of S. 2597 and Honolulu amendments. Resolutions are, however, deemed to be entirely consistent with S. 2597 with Honolulu amendments.
5 Chicago	do			(*)		No formal position adopted to date S. 2597 acceptable with or without Honolulu amendments.
6 Cincinnati	do			(*)		*Favors S. 2597 with Honolulu amendments, together with additional amendments such as the substance of the changes to interference practice proposed in Yarborough-Foster bill (S. 2164). Also favors revisions to secs. 100(g); 100(h)(3); 123; 136(d); 131(g); and other specified changes to 35 U.S.C. 135. *No formally adopted position re S. 2397 or any other bill under consideration. Association had studied President's Commission recommendations, S. 1042 and H.R. 5924. In the light of the association's conclusions resulting from that study, the consensus of the legislative committee of the association was that S. 2597 is generally in accord with the views of the association's membership.
7 Cleveland	do		X		100(h)4; 123; 136	Also proposes addition of new sec. 257 in ch. 25 to provide for the citing of "prior art" against file of issued patent, with opportunity for applicant to reissue or disclaim consistent with secs. 251, 252, 253 et al.
8 Columbus	do		X			Also proposes that an amendment to 20-year term provision be made, extending term in case of delays caused by NASA or AEC security requirements preventing issuance of patent which is otherwise allowable and ready for formal grant.
9 Connecticut Bar	Patent, trademark and copyright section					Opposes enactment of S. 1042 (H.R. 5924). Poll of membership not completed, but thus far indicates that S. 2597 (with Honolulu amendments) is favored, possibly with certain modifications.

10	Connecticut PLA.....	Association.....					Opposes enactment of S. 1042 (H.R. 5924). Poll of membership not completed, but thus far indicates that S. 2597 (with Honolulu amendments) is favored, possibly with certain modifications.
11	Dallas-Fort Worth.....	do.....	X				Plan to submit proposal to entire membership for vote on position approved by board of managers.
12	Dayton.....	Legislative committee and board of managers.....	X				11 resolutions approved. Opposes elimination or shortening of 1-year grace period of present law, and opposes in principle change in law whose effect would be to institute a first-to-file system. Favors a simplified interference procedure. Opposes in principle change in 35 U.S.C. 102 which would include foreign knowledge, use, or sale as prior art. Opposes some and favors others of provisions in S. 1042. Full statement of all adopted resolutions submitted to Patent Office by the National Council of Patent Law Associations (together with copies of formal statements made by other members of national council).
13	District of Columbia....	Board of directors.....					Statement indicated that S. 2597 was approved in its "present form", not clearly indicating whether this meant to include Honolulu amendments or not.
14	Eastern New York.....	Association.....	X	X			*S. 2597 acceptable if amended to include conditional claiming concept whereby patent issuance would not be held up pending priority contests, appeals, or oppositions. Also favors amendments to include all of other provisions of Varborough-Tower bill, S. 2164.
15	Houston.....	do.....			(*)		Purpose of changes to sec. 111(c), etc. would be to permit serving of a copy of application on legal representative of deceased or incapacitated inventors. Amendment to sec. 117 would authorize legal representative of such inventors to "stand in their shoes" under the act.
16	Indiana.....	Council (present officers and immediate past chairman).....		X			S. 2597 with Honolulu amendments is 1st choice.
17	Los Angeles.....	Association.....	X	X			Prior to introduction of S. 2597 association had adopted a series of resolutions after considering S. 1042 in depth. A statement of principles favoring provisions approving some sections of S. 1042 and disapproving others was adopted. There is nothing in S. 2597 which is inconsistent with that statement. Some informal opposition has been voiced to sec. 32 in S. 2597.
18	Michigan PLA.....	do.....					

See footnotes at end of table.

FORMALLY STATED POSITIONS RE PATENT LAW REVISION BILLS (S. 2597 (AND CORRESPONDING H.R. 13951) AND OTHERS INTRODUCED IN 90TH CONG.) BY EACH MEMBER ASSOCIATION OF THE NATIONAL COUNCIL OF PATENT LAW ASSOCIATIONS—Continued

Code No. (alphabetical listings)	Member associations	Positions stated are those of—	Bill(s) favored		Although S. 2597 (H.R. 13951) acceptable "as is," or with Honolulu amendments, if possible to advocate specific revisions would modify following sections	Other remarks
			S. 2597 (H.R. 13951)	Other		
			"As is"	Honolulu ¹		
19	Michigan bar.....	Section on patent, trademark and copyright law.	----- X	-----	-----	Basic principles of S. 2597 with Honolulu amendments have been approved by the Michigan State bar.
20	Mid-Hudson.....	Association.....	-----	-----	-----	Abstains from voting on questions at present time.
21	Milwaukee.....	do.....	-----	(*)	-----	S. 2597 approved and endorsed with following exceptions: (1) modify 119(a); (2) eliminate 136, 137; and (3) endorses and specifies interference practice in which burden is on Patent Office to declare interference. Strongly opposes S. 1012.
22	Minnesota.....	do.....	----- X	-----	-----	Approved and supports S. 2597 with Honolulu amendments, aligning itself with all other member associations of National Council of Patent Law Associations favoring S. 2597, as amended.
23	New Jersey.....	do.....	-----	(*)	-----	Supports S. 2597 provided: (1) sec. 100 is revised to change "sold" to "placing on sale"; (2) eliminate preallowance publication at request of applicant; (3) revise sec. 137(a) to permit applicant to prove acts of invention in countries other than United States; (4) add provision to sec. 154 extending 20-year term by a period equivalent in time to the delay in issuance as a result of a Government secrecy order.
24	New York.....	Association (per board of governors, which is authorized to function as the managing body of the entire association).	----- X	-----	-----	Disapproves Varborough-Tower bill, S. 2164, but would favor its principle adoption of provision in S. 2597 to assure prompt publication and issuance of application of senior party in cases of interfering application.
25	Ohio Bar.....	Patent, Trademark, and Copyright Committee (a subcommittee of the State bar).	----- X	-----	-----	

26	Oregon	Association			No formal position re S. 2597. Took positions on each of recommendations in report of Presidential Commission on Patent System. In general, favors first-to-file, retention of grace period, and preliminary applications. Might approve S. 2597 if amended to include these 3 provisions.
27	Philadelphia	do	X	31, 123, 136(d)	Have not yet acted to take a vote on S. 2597. Only action to date is consideration of S. 1042 and an analytical report thereof.
28	Pittsburgh	Board of Governors			Of the patent bills now pending, would prefer the basic provisions of the so-called ABA patent bills (S. 2597 and H.R. 13951) as providing improved benefits to the general public while retaining essential rights of the patentee.
29	Rochester	Association	X		Approved 35 resolutions and urged passage of a bill conforming thereto. The gist of those resolutions is consistent with resolutions adopted by American Bar Association's Patent Section which, in turn, has been incorporated in S. 2597 with Honolulu amendments.
30	San Diego	do	X		*S. 2597 acceptable with the exception of provisions regarding interference practice. Prefers incorporation of principles reflected in Farborough-Tower S. 2164.
31	San Francisco	do	X		Poll of entire membership taken. Results were that majority favored S. 2597, a number favored addition of conditional claiming concept of S. 2164, and a still smaller number favored a first-to-file system such as in S. 1042.
32	St. Louis	Patent section			Unanimously approved in principle the so-called ABA bill (S. 2597; H.R. 13951) and considers it to be preferable to the more drastic proposals currently under consideration with regard to patent law revision, notably H.R. 5924 (S. 1042), the so-called patent reform bill.
33	Texas Bar	Patent, trademark, and copyright section		(*)	
34	Toledo	Association			
35	Washington (State)				

¹ Honolulu refers to amendments to S. 2597 (H.R. 13951) proposed at 1967 meeting in Honolulu of American Bar Association, patent, trademark, and copyright section. A list of those proposed amendments precede this table.

Senator FONG. We will recess now until 10 o'clock tomorrow morning.

(Whereupon, at 3 p.m., the subcommittee recessed, to reconvene at 10 a.m., Thursday, February 1, 1968.)

FOR THE GENERAL REVISION OF THE PATENT LAWS

THURSDAY, FEBRUARY 1, 1968

U.S. SENATE,
SUBCOMMITTEE ON PATENTS,
TRADEMARKS, AND COPYRIGHTS OF THE
COMMITTEE ON THE JUDICIARY,
Washington, D.C.

The subcommittee met, pursuant to recess, at 10:10 a.m., in room 3302, New Senate Office Building, Senator John L. McClellan (chairman) presiding.

Present: Senators McClellan and Fong.

Also present: Thomas C. Brennan, chief counsel, Edd N. Williams, Jr., assistant counsel; Stephen G. Haaser, chief clerk, Subcommittee on Patents, Trademarks, and Copyrights.

Senator McCLELLAN. The committee will come to order. We have a number of witnesses present.

Gentlemen, beginning on my left, will you identify yourself, please, for the record?

Mr. MESSENHEIMER. My name is Donald Messenheimer. I am a patent counsel, Washington, D.C.

Mr. SUTHERLAND. My name is John I. Sutherland, executive vice president, American Seed Trade Association, Washington, D.C.

Mr. INGERSOLL. My name is Floyd Ingersoll, president, Illinois Foundation Seeds, Inc., Champaign, Ill.

Mr. SMITH. My name is J. Ritchie Smith, assistant director of research, National Cotton Council of America, Memphis, Tenn.

Dr. NEELEY. My name is Jim Neeley, Coker's Pedigreed Seed Co., Hartsville, S.C., a plant breeder.

Dr. WALKER. My name is George Rea Walker, Stoneville Pedigreed Seed Co., Stoneville, Miss., a plant breeder.

Senator McCLELLAN. Thank you very much.

Do one of you represent the association, or do each of you wish to testify?

Mr. SUTHERLAND. The president of the American Seed Trade Association will present the statement, and Mr. Smith, of the National Cotton Council, also has a statement. The rest of us here are here as technical experts.

Senator McCLELLAN. You may proceed.

Mr. INGERSOLL. We have filed a statement with the committee. We will take a few minutes to discuss our statement.

Senator McCLELLAN. You want your statement printed in the record in full and then highlight it?

Mr. INGERSOLL. Yes, sir. We would like to file our complete statement and supporting brief for the record.

Senator McCLELLAN. That will be very agreeable. The statement will be printed in the record in full. The reporter can insert any omission that you make from your prepared text. I do not wish to crowd anyone, but we would like to conclude this series of hearings this morning. We want to give you ample time, however.

There are a number appearing here on the same issue. I think it is well to let your statement be printed in the record and then each of you make your presentation. You may proceed.

STATEMENT OF FLOYD S. INGERSOLL, PRESIDENT, AMERICAN SEED TRADE ASSOCIATION, AND MANAGER, ILLINOIS FOUNDATION SEEDS, INC., CHAMPAIGN, ILL., REPRESENTING AMERICAN SEED TRADE ASSOCIATION; ACCOMPANIED BY DR. GEORGE REA WALKER, STONEVILLE PEDIGREED SEED CO., STONEVILLE, MISS.; DR. JIM NEELEY, COKER'S PEDIGREED SEED CO., HARTSVILLE, S.C.; DONALD MESSENHEIMER, ESQ., WASHINGTON, D.C.; JOHN I. SUTHERLAND, EXECUTIVE VICE PRESIDENT OF AMERICAN SEED TRADE ASSOCIATION; AND J. RITCHIE SMITH, NATIONAL COTTON COUNCIL, MEMPHIS, TENN.

(The following were in attendance at the hearing:)

Dr. Harold D. Loden, ACCO Seed, Anderson, Clayton & Co., Belmond, Iowa
Mr. George Hall, ACCO Seed, Anderson, Clayton & Co., Post Office Box 521, Abilene, Texas

Dr. John A. Long, O. M. Scott & Sons Company, Inc., Marysville, Ohio
Mr. Harold Doellinger, O. M. Scott & Sons Company, Inc., Marysville, Ohio
Mr. Bruce Price, American Seed Trade Association, 1030 Fifteenth Street, N.W., Washington, D.C.

Mr. Robert Falasca, American Seed Trade Association, 1030 Fifteenth Street, N.W., Washington, D.C.

Benton S. Duffett, Jr., Esq., Burns, Doane, Benedict, Swecker & Mathis, 815 Connecticut Avenue, N.W., Washington, D.C.

Mr. INGERSOLL. Mr. Chairman and members of the subcommittee. The American Seed Trade Association and the National Council of Commercial Plant Breeders are national organizations with membership throughout the United States. The direct membership of the ASTA is approximately 500 companies, with member companies in every State. The indirect membership represented in the ASTA by the various State and regional associations, is approximately 4,000 companies.

We are appearing here today to testify in support of amendment No. 511 to S. 1042. I have before me the amendment, which is very brief. I do not know, without reference to the bill itself, that anyone reading the record would understand it. We would like to have it printed in the record at this point.

Senator McCLELLAN. We may have to refer back to the original bill for a correct impression of what it really means, that is, the impact which it has. The amendment is ordered printed at this point of the record.

(Amendment No. 511 to S. 1042 follows:)

[Amendment No. 511 to S. 1042]

On page 22, line 23, after the word "asexually" insert the words "or sexually".
On page 23, line 3, after the word "asexually" insert the words "or sexually".

Senator McCLELLAN. You may proceed.

Mr. INGERSOLL. This amendment would be applicable to the plant patent chapter of any of the bills which have been introduced, as well as to the current patent law.

On May 23, 1930, the Townsend-Purnell Plant Patent Act was signed into law. For the first time in the history of our Nation the discoverer or originator of certain new plants was given an option to seek legal protection for his contribution.

The motivation behind the enactment of the plant patent legislation may be learned from Report No. 315 of the Senate Committee on Patents dated April 2, 1930. The report states:

The purpose of the bill is to afford agriculture, so far as practicable, the same opportunity to participate in the benefits of the patent system as has been given industry, and this assist in placing agriculture on a basis of economic equality with industry. The bill will remove the existing discrimination between plant developers and industrial workers.

* * * * *

Today the plant breeder has no adequate financial incentive to enter upon his work. A new variety once it has left the hands of the breeder may be reproduced in unlimited quantity by all. The originator's only hope of financial reimbursement is through high prices for the comparatively few reproductions that he may dispose of during the first two or three years.

The purpose of the act was to stimulate plant breeding research so that our country as a whole would benefit from the development of new plants. The act had a broad base of support.

Secretary of Agriculture Hyde wrote to the Senate Committee on Patents the following:

The proposed legislation would appear to be desirable and to lend far-reaching encouragement to agriculture and benefit to the general public.

Writings of Luther Burbank such as the following were presented to Congress:

A man can patent a mousetrap or copyright a nasty song, but if he gives to the world a new fruit that will add millions to the value of the earth's harvest, he will be fortunate if he is rewarded by so much as having his name connected with the result.

Thomas A. Edison sent a telegram expressing his views on the proposed legislation which read:

Nothing that Congress could do to help farming would be of greater value and permanence than to give to the plant breeder the same status as the mechanical and chemical inventors now have through the patent law. There are but few plant breeders. This will, I feel sure, give us many Burbanks.

Representative Cannon stated on the House floor:

. . . [T]here is no man who is a greater benefactor to the human race than the man who produces a new vegetable or a new fruit.

The scope of the Plant Patent Act as it exists today is limited to those new and distinct varieties of plants which reproduce asexually, that is, by grafting, budding, cuttings, division, and the like. Illustra-

tive examples of plants which reproduce asexually include roses, sugarcane, nuts, and fruits.

Those new varieties of plants which reproduce sexually, that is, generally by seeds, are provided no protection under the existing legislation. It accordingly follows that no patent protection is currently available with respect to new varieties of the bulk of economically important agricultural crops. Illustrative examples of plants which reproduce sexually include cereals, forages, flowers, vegetables, and grasses—cotton, soybeans and vegetables. These represent over \$12 billion in total value. In this group, soybeans alone are \$1 billion for exports. I believe it is the largest seller in the export market of the United States.

The amendment of the existing legislation to make the benefits of the patent system available for new varieties of plants which reproduce sexually has widespread support. The following groups have supported the broadening of the Plant Patent Act to cover new plants which reproduce sexually: the seed trade, canners, nurserymen, plant patentowners, cotton council, and the patent bar.

When the Plant Patent Act was adopted in 1930, legal protection for sexually reproduced plants was excluded. The improvement of crop varieties through plant breeding, based on the scientific application of genetics, pathology, physiology, cytogenetics, and related disciplines, was still in its infancy. Plant breeding conducted by commercial firms and supported by corporate funds has evolved as an industry largely since 1930. Improved breeding techniques and seed multiplication procedures have developed whereby the varietal identity of a sexually reproduced plant can be maintained intact over an extended period of time. Because of these advances in technology we now have a plant breeding industry which did not exist in 1930.

In the 37 years which have passed since the enactment of the Plant Patent Act improved breeding techniques and seed multiplication procedures have become established whereby many plant varieties may be reproduced from seeds true to form. Such ability of plant varieties to reproduce true to form from seeds is now acknowledged in existing legislation, such as the Federal Seed Act which was enacted August 1939, and seed certification. It accordingly follows that the distinction drawn in the Plant Patent Act between plants which reproduce asexually and plants which reproduce sexually is artificial, and that the act should be broadened to include plants which reproduce sexually.

No country other than the United States is known which withholds legal protection from the originator of a new plant variety merely because its form of reproduction is sexual rather than asexual.

Today an incentive is urgently needed with respect to plants that reproduce sexually so that private industry can find it economically possible to carry on an expanded plant research effort. The best way to illustrate this need is by the following example.

We have here with us representatives of two firms who have researched plant varieties that will reproduce sexually, and, therefore, are not patentable. Dr. Neeley, would you like to relate your experience with reference to soybeans?

Senator McCLELLAN. Have you concluded with your statement?

Mr. INGERSOLL. No, sir.

Senator McCLELLAN. He will be the next speaker then?

Mr. INGERSOLL. Yes.

**STATEMENT OF DR. JIM NEELEY, COKER'S PEDIGREED SEED CO.,
HARTSVILLE, S.C.**

Dr. NEELEY. My company has been a breeder of several field crops used in the fields for over 66 years. One of these crops, as indicated, is soybeans. Over a period of years we have spent between \$400,000 and \$500,000 to develop a variety which is now being grown on a large part of the soybean acreage in the Southeastern part of the United States. As a matter of fact, it is grown on 83 percent of the large acreage in South Carolina.

The adoption and the growing of this variety has been one of the important reasons for a large increase in soybean acreage in the Southeast, and also a marked improvement in the quality of the crop in its adaptation to mechanical harvesting. At the same time, in growing and increasing the seed of different varieties and releasing the seeds, selling them to farmers, directly and indirectly, we have lost hundreds of thousands of dollars in our soybean business; at the same time, by all known standards, ours is recognized as being a very effective way. While we have been losing money on our soybean item, good farmers and good friends of ours have been increasing this soybean production and selling it to other farmers and have developed a very profitable and lucrative business in handling this variety.

For these reasons, we feel, as other commercial plant breeders do, that we should have legal protection such as would be provided for in the amendment being discussed here today, so that we might receive our share of the income from the varieties developed by us as the result of our extensive and expansive plant breeding seed program.

Senator McCLELLAN. They grow a great deal of soybeans in my State. As I understand it, using this as an illustration, to try to understand what is involved here, you cannot patent an improved soybean seed and take advantage of marketing and producing the seed variety for that particular bean; is that correct?

Dr. NEELEY. That is exactly right.

Senator McCLELLAN. Where you have a grafting process, or something like that, what you call asexual; there, you can; is that right; am I correct? You can patent that. By the use of it, the man gets the profit. Now, you spend your money, time, and skill directed toward the improvement of it.

Dr. NEELEY. That is correct.

Senator McCLELLAN. That is, on a product such as that, you cannot get anything for improvement if it is a seed; in other words, you may lose the money that you have actually invested in doing that; is that it?

Dr. NEELEY. Yes.

Senator McCLELLAN. At this point, I may as well ask this question: Is there not some opposition to this proposal?

Mr. INGERSOLL. Yes, sir.

Mr. SUTHERLAND. There is opposition.

Senator McCLELLAN. Very well.

Mr. INGERSOLL. With your permission, may we have Dr. Walker relate his experience with cotton, sir?

Senator McCLELLAN. Dr. Walker.

**STATEMENT OF DR. GEORGE REA WALKER, STONEVILLE
PEDIGREED SEED CO., STONEVILLE, MISS.**

Dr. WALKER. The company that I represent, Senator McClellan, basically is engaged in cottonseed breeding. We have been in the business close to 50 years. I would like to give you a little different picture from what has been given with reference to soybeans, to let you see the program that now exists in cotton.

Going back for a few years, for a quick review, cotton was in the same position exactly as was just stated on soybeans, but we have had several things to our advantage. The technicalities and improvements had not gone into effect where the farmer would plant, say, 75 to 100 pounds per acre of seed. So, we had that.

At the present time, we have a cutback in acreage. So, it puts the breeder then into a real tricky position, with his know-how, his research, his advertising and technical programs, along with all of the new things that cotton has come to such as quality.

So, searching for some protection, starting out some 6 years ago, we tried to work with the International Crop Improvement Association.

Three years ago, the International Crop Improvement Association, with a subdivision in cotton which represented the cotton States, agreed to prepare a certification, that they would not go beyond 1 year in generation of the breeder seed. The breeder seed was normally sold as a registered seed, and that the first year's seed in the certification program would be certified seed.

In the years passed previously, it had a green tag. The other was a blue tag. Two years ago, they—all of the Southern States—adopted this year limitation. By that means, the breeder then could sell his registered seed to those who certified, with the mutual understanding that they could contribute to them in the form of a royalty or a fee.

This program has now been, as I said, in effect 2 years. It has worked wonderfully well. It has gone from Georgia to Alabama, Mississippi, Arkansas, Louisiana, Texas, and into California, with quite a few of the certified growers in the east contributing.

This bill is a stopgap. It does not fill all of the gaps outside of certification, but it is a step in the direction of protection.

We wanted to carry this out, to let you know that it has worked. It is working fine, and we are all cooperating throughout the whole South.

Senator McCLELLAN. You are convinced it can be administered?

Dr. WALKER. Yes, sir.

Senator McCLELLAN. I have some question about the administration of it, the enforcement of it. Do you think it can be administered and enforced?

Dr. WALKER. It would be left up to the individual.

Senator McCLELLAN. What do you mean, "left up to the individual?"

Dr. WALKER. I mean, left up to the persons who has the patent to see that it is not violated.

Senator McCLELLAN. I understand that, he might have a legal remedy to enforce it, but from the practical aspect of it, is it practical, as men, undertaking to enforce it?

Dr. WALKER. As far as the trade is concerned; yes, sir. Seeds that get into legitimate trade, I think, would be handled correctly.

Senator McCLELLAN. Very well. Go ahead.

Is there anything further?

Dr. WALKER. No, sir. Thank you very much.

Senator McCLELLAN. Thank you very much, sir.

You may proceed, Mr. Ingersoll.

STATEMENT OF FLOYD INGERSOLL—Resumed

Mr. INGERSOLL. One cotton firm reports the cost of developing variety of cotton at \$572,000 prior to its introduction, and its total breeding costs during the years the new variety was under development at \$1,145,988. Approximately one-half of the firm's total breeding costs were attributed to the variety in question since it was estimated that a portion of these costs was properly apportioned to varieties to be released in the future. During a recent 5-year period 88 to 94 percent of the cotton acreage of a Southern State was planted in two varieties developed by this cotton firm. However, during the same period the company sold only enough seed of these varieties to plant 10 to 15 percent of the State's cotton acreage. Similar disparities were reported in other States where a significant percentage of cotton acreage was planted in the varieties of the breeder. Losses amounting to \$234,130 have been incurred by the firm's cottonseed operation since the variety was released.

The absence of any form of legal protection for the originators of new plants which reproduce sexually has forced many companies to forgo comprehensive research programs, or to concentrate research efforts in areas where other forms of protection are provided. For instance, great advances have been made in the development of hybrid corn and hybrid sorghum. The originator of a new hybrid variety, by maintaining in secrecy the parental lines used to produce the variety, has found a form of protection. We would call this "built-in" protection. The seed produced on the plants grown by the farmer is incapable of being used for planting purposes. No seedsman except the originator or his designated dealers is able to market the hybrid variety.

Hybrid corn and hybrid sorghum companies have established excellent breeding programs, and provide employment for skilled plant breeders and supporting staffs. The improvements in yield and income available to the farmer growing these two crops noticeably exceed the corresponding increases achieved by the farmer growing other field crops that have not been hybridized.

No protection is available, however, for many crops, and much less research is presently being conducted in this area. Experience indicates that when some form of protection is available, research funds are made available by private industry. Therefore, the one missing link is a system of legal protection such as sought by amendment No. 511.

The patent grant awarded to the inventor of a new plant variety which reproduces sexually would in no manner interfere with either the use of seed capable of producing the variety for purposes other than reproduction, or the use of germ plasm from the plant by

researchers for the development of different plant varieties. No form of Government regulation of germ plasm would be involved in a system for the legal protection of new plant varieties under an amended Plant Patent Act.

The patent grant awarded to the inventor of a new plant variety which reproduces sexually would be granted on the new plant variety produced from seed. The patent grant would cover the particular variety shown and described in the patent document. A single plant trait could not be patented broadly so as to cover all plant varieties having the new trait. Therefore, the germ plasm used in producing the patented plant could be freely used by other plant researchers for the production of different varieties.

Since the plant patent system has the inherent quality of encouraging the prompt marketing of a new variety so that the owner is provided an opportunity to be rewarded for his contribution, it is expected that the new breeding materials would become available at an early date. Other plant researchers could acquire on the market the new seed or germ plasm for use in plant breeding research activities and in the development of additional marketable varieties. It is accordingly expected that an amended Plant Patent Act would make increased quantities of new breeding materials available for plant research. The exchange of germ plasm would continue to be to the mutual advantage of all those engaging in plant research.

The existing Plant Patent Act has worked remarkably well in the areas where it is applicable. For instance, the U.S. rose industry today is second to none in the world. It is estimated that of the 50 million garden rose plants produced annually in the United States, having an approximate wholesale value in excess of \$45 million, over 80 percent of these are or have been patented. It is further estimated that of the approximately 20 million rose bushes growing in greenhouses in this country for the production of cut blooms, more than 90 percent of these rose plants are of varieties that are or have been patented. From these greenhouse plants over 300 million blooms are sold annually having a wholesale value in excess of \$50 million. The seed industry believes that the Plant Patent Act if amended to include plants which reproduce sexually, would provide a similar stimulus to its industry. Over the past several years we have studied and examined the operation of other systems of protection for plant breeders, and have concluded that there is no practical substitute for the patent system.

The American Seed Trade Association has been studying a form of protection for 7 years. We have done this through a committee. We have looked at plans in Europe. They have considered many plans that might be possible in the United States, and they have come up with five prerequisites that a plan must have before it is acceptable to the industry. It is difficult to get a plan that is acceptable to all segments of the industry, because, we, of course, have many different things within our industry, soybeans, feed grains, vegetables, and several other divisions. These five points were decided upon a year ago.

First, a workable system must be voluntary.

Second, the grant of protection should be based on proof of the novelty.

Third, proof of the usefulness and superiority of a plant variety should not be required as a condition of securing protection. It should not be based on performance.

Fourth, the protection must not interfere with the free flow of sale information, and

Fifth, the enforcement or the defense of the protection granted should be the responsibility of the owner of the right, at his expense.

Now, of all of the systems that have been considered, the patent system is the only one that meets all of the requirements, and even though there has been much controversy in the organization over the protection of breeders' rights, the committee, in Chicago about 3 months ago, approved the patent system, and when it went to the board of directors for approval there was not a single vote against it.

So, after studying this problem for 7 years, the American Seed Trade Association is united behind the patent system.

Historically, the consumer has been the principal recipient of benefits from improvements derived through research. Increased quality, adaptability, disease resistance, and yield are results of research which afford the farmer more dollars per acre.

In the case of corn, he has the choice of growing an open-pollinated variety whose seed would cost approximately \$1 per acre and which would yield, in a State such as Illinois, approximately 50 to 60 bushels per acre having a value of approximately \$60 to \$72 per acre; or the choice of growing a hybrid variety whose seed would cost approximately \$4 per acre to obtain an approximate yield in the same State of 100 bushels per acre having a value of approximately \$120 per acre. A net increase in return for the farmer of approximately \$45 to \$57 per acre would result if hybrid planting seed were selected. For this reason, over 95 percent of the U.S. corn acreage is planted with hybrid corn varieties costing in the range of \$15 to \$18 per bushel rather than with an open-pollinated variety costing less than \$4 per bushel.

In the cotton industry the income to the farmer is not based on yield alone, but the quality of the fiber is also of significance. Improved farm management and cultural practices cannot help with cotton as much as with other crops since quality is dictated largely by the genetic makeup of the particular plant variety. Quality has been improved by private breeders, and it is commonly known in the industry that further improvements can be made through research. However, researchers working in private industry cannot recoup their costs without a system of legal protection.

Plant breeders and other informed persons agree that enormous opportunities exist for the improvement and the development of new varieties of plants which reproduce sexually. The plant-breeding industry affirms that it is ready and able to increase its research and development efforts if only the requested amendment to the Plant Patent Act is enacted. The new and improved varieties of plants that will surely result from future research can better enable mankind to meet the predicted food, livestock feed, and fiber needs of the coming decades.

In summary, the seed industry is strongly supporting amendment No. 511 which would:

A. Maintain the Plant Patent Act as part of the patent system; and

B. Broaden the applicability of the Plant Patent Act, thereby making plants which reproduce sexually as well as asexually eligible for the benefits of the patent system.

Thank you, Mr. Chairman, for the opportunity of appearing before your committee today.

With reference to corn, I think that I can illustrate this by giving you a typical example of the way we think it should work.

For instance you have high lysine corn, a type of corn which has a more balanced protein. It is 150 percent. It was discovered by Nelson and Murzt, Purdue University. It is produced by incorporating two genes, Opaque 2 and Floury 2, into normal corn, and immediately upon discovering this they sent that genetic material to industry, and now industry is feverishly working on this, to the extent of three places, one in Champaign, Ill., one in Hawaii, and one in Florida, incorporating the Opaque 2 gene and the Floury gene into usable material for the farmer.

Who benefits? If this is a success, certainly the seed men will be benefited, and certainly the farmer will be benefited because he can feed this corn directly to swine without a supplement, and, therefore, have a more economical production, and the consumer will be benefited, because, certainly, he will buy his pork chop and his bacon at a lower price, and that is not the only possibility, but in the underprivileged nations of the world there are many people who eat corn directly. Nelson and Mudzt also provided that in feeding this corn to undernourished children, it was possible to improve their physical condition remarkably. It approaches the value of milk proteins.

So, certainly, there is an opportunity for the consumers throughout the world to benefit from this whole project. This project would have been impossible had it not been in the development of it—I should not say that it would have been impossible. It would have taken a longer period of time before it could have been available. This is an example of how we think this program should work.

Thank you, again.

Senator McCLELLAN. Are there any further comments by anyone present?

Mr. SMITH. Mr. Chairman, I would like to make a statement, if I may.

Senator McCLELLAN. Very well. You may proceed.

Mr. SMITH. I have a statement that I have presented for the record.

Senator McCLELLAN. You are willing to present it for the record, or do you wish to read it?

Mr. SMITH. It is only 2½ pages long, and I would like to read it, sir.

Senator McCLELLAN. You may proceed.

Mr. SMITH. With some slight modifications.

Senator McCLELLAN. Very well, proceed.

STATEMENT OF J. RITCHIE SMITH, ASSISTANT DIRECTOR OF RESEARCH, NATIONAL COTTON COUNCIL OF AMERICA, MEMPHIS, TENN.

Mr. SMITH. My name is J. Ritchie Smith. I am assistant director of research for the National Cotton Council of America, with headquarters in Memphis, Tenn. The council is the central organization of

the raw cotton industry representing producers, ginner, crushers, merchants, warehousemen, cooperatives, and manufacturers.

Under our procedures, any matter of council policy must be approved by each of these interests, and any one interest may exercise the veto power.

The council strongly supports amendment 511 to S. 1042, which would provide legal protection for the developers of all new plant varieties. At their meeting in Oklahoma City this week, our delegates unanimously agreed that the council should:

Recognize the necessity for improving varieties and the quality of cotton planting seed; support legislation to establish an effective, equitable, and workable system of plant breeders' rights; and continue to cooperate with the Joint Cotton Breeding Policy Committee in efforts to improve variety testing and the breeding, release, and distribution of cotton planting seed which will best serve the interest of farmers and the entire cotton industry.

Nothing could be more fundamental to the future welfare of cotton than plant breeding. In its longstanding battle against manmade fibers, cotton must compete in terms of quality and price. And plant breeding is one of the vital keys to strengthening cotton's competitive position in both of these areas. It can give us new varieties which offer higher quality, value, and performance to our mill customers. Plant breeding also can lower production costs—and strengthen the farmers' ability to compete in price—by developing varieties which offer highest yields, better disease resistance, and other improvements which reduce unit costs.

Cotton urgently needs more attention and investment from plant breeders if it is to meet the test of modern competition. Yet the plain fact is that cotton is getting less attention—rather than more attention—from breeders. And the reason is obvious: commercial breeders are losing money on cotton. They have no incentive to put heavy investments into cotton because they are denied the kind of legal protection of their new developments that has long been accorded to other innovators and inventors—including those who develop plants which are reproduced by asexual means.

A cotton breeder may take 10 or 12 years or more to develop a new variety. He may spend several hundred thousand dollars—or perhaps a million—on that variety. Then, as soon as he puts in his new variety on the market, anyone can come along and use the breeder's seed to reproduce and commercialize on that variety—without making any direct investment in the varietal development process.

Unless this situation is corrected, private investment in cotton plant breeding is assuredly going to dry up. Those breeders who are continuing to put heavy emphasis on cotton are doing so in the hope and expectation that they will be provided reasonable legal protection for their investment, and afford them the opportunity to make a return on that investment. This is, of course, the very heart of the competitive enterprise system which has sparked America's development and made it the most prosperous of all nations.

If we are to attract more private capital into cotton plant breeding, we must have a system of legal protection for the developers of plant varieties—whether reproduced asexually or sexually. This system should have the following characteristics:

1. It should be voluntary; that is, the developer of a variety should not be compelled to use the system.

2. The grant of protection should be based on proof of the novelty, newness, and distinctiveness of the variety without requiring growing tests under the supervision of a Government agency. This is just the normal procedure for patents.

3. Proof of the usefulness and superiority of a plant variety should not be required as a condition of securing protection.

4. The enforcement or defense of the protection granted should be the responsibility of the owner of the right, at his expense.

5. A system of protection should be open and available to any originator or developer of a new plant variety.

6. The system should not interfere with the free flow of information and breeding materials among plant scientists.

It is our studied opinion that S. 1042 with amendment 511 will meet all of these tests. It simply extends to all plant breeders the same rights that have long been provided for other innovators. Our history makes it abundantly clear that this form of legal protection is in the public interest. We are convinced that the investment and competition it will generate among cotton plant breeders will serve the best interests of producers and the entire American cotton industry.

We urge approval of amendment 511, and appreciate the opportunity to present the council's view on this matter.

Senator McCLELLAN. Thank you very much, Mr. Smith.

Are there further comments, gentlemen?

Mr. SUTHERLAND. No, sir.

(A document entitled "Legal Protection for New Plant Varieties Which Reproduce Sexually" follows:)

LEGAL PROTECTION FOR NEW PLANT VARIETIES WHICH REPRODUCE SEXUALLY

(By National Council of Commercial Plant Breeders, Washington, D. C.,
January 1968)

PREFACE

The President announced on July 23, 1965 the appointment of a Commission to review the operation of the United States Patent System. Over a period of eighteen months thirty-one days of meetings were held by this group, and a Report was presented to the President consisting of thirty-five recommendations with accompanying comments.

Recommendation IV of the Report deals in part with Plant Patents, and its relevant portion reads as follows:

"All provisions in the patent statute for plant patents shall be deleted, and another form of protection provided."

Comments of the Commission which accompanied the above recommendation are as follows:

"Plants: A patent may be granted today on any new and distinct variety of specified types of asexually reproduced plants. The statute imposes the requirement of unobviousness for patentability. In practice, however, patents are granted if the Department of Agriculture notifies the Patent Office that, as far as it can determine, the plant variety is new, and the examiner finds no art indicating the contrary.

"While the Commission acknowledges the valuable contribution of plant and seed breeders, it does not consider the patent system the proper vehicle for the protection of such subject matter, regardless of whether the plants reproduce sexually or asexually. It urges further study to determine the most appropriate means of protection."

A study of the Report indicates that the primary concern of the Commission was that the Plant Patent did not appear to conform to the requirements of the Patent Law relating to patents in general, in that during the examination procedure the Patent Examiner seemed not to apply a test of "unobviousness."

It is clear that the Commission regarded "unobviousness" along with novelty and utility as constituting the essential requirements to support patentability.

The Report of the President's Commission gave no reasons supporting its apparent belief that inventions and discoveries of new and useful plant varieties do not involve "unobviousness," and failed to acknowledge that the courts have in fact found "unobviousness" present in every Plant Patent brought into litigation where this was an issue.

It may be noted that no representative from the plant or agricultural industry, either in Government or private enterprise, was a member of the Commission. The Commission did not release any explanatory material indicating it understood the technology involved, or that it realized the techniques and procedures followed in successful plant breeding are quite different from those procedures utilized in the mere multiplication of a newly developed plant variety prior to its introduction and marketing. The Commission made clear it had not fully investigated this matter, and urged a further study to determine the most appropriate means of protection for new plant varieties.

As urged by the President's Commission, extensive studies have been made by members of the plant industry and others to determine the needs of the plant industry for maximum growth and contribution to the economic development of this country, and the best means of protection for new plant varieties. It has been concluded that—

A. The protection of proprietary rights offered by the Patent System will best meet the needs of industry in achieving its goals of growth and economic development.

B. The requirements of patentability can be applied with respect to plants just as they are with respect to inventions in the chemical, electrical and mechanical areas of technology.

The current Plant Patent Act is limited in its applicability to those plants which reproduce asexually, i.e., generally *not* by seeds. This excludes plants constituting many important crops such as cotton, corn, rice, wheat, soybeans, etc., but includes plants such as roses, sugar cane, nuts, fruits, etc. The Plant Patent Act has promoted significant advances within the area of plant technology to which it is applicable; and it is proposed that this Act be amended to become effective for plants which reproduce sexually.

It is therefore the intent of the following text to provide justification for—

A. Maintaining the Plant Patent Act as part of the Patent System; and

B. Broadening the applicability of the Plant Patent Act, thereby making plants which reproduce sexually as well as asexually eligible for the benefits of the Patent System.

The proposed amendment of the Plant Patent Act constitutes simply the insertion of the words underlined in the following sections of the Act:

Section 161

Whoever invents or discovers and asexually *or sexually* reproduces any distinct and new variety of plant, including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state, may obtain a patent therefor, subject to the conditions and requirements of this title.

The provisions of this title relating to patents for inventions shall apply to patents for plants, except as otherwise provided.

Section 163

In the case of a plant patent the grant shall be of the right to exclude others from asexually *or sexually* reproducing the plant or selling or using the plant so reproduced.

Plant Patents would continue to be granted as in the past for new varieties of plants which reproduce asexually, and new varieties of plants which reproduce sexually would become eligible for patent protection upon the adoption of the amendment.

LEGAL PROTECTION IN THE UNITED STATES FOR NEW PLANT VARIETIES AS IT EXISTS TODAY

Throughout the years our indebtedness to the authors of the United States Constitution has become strikingly apparent to many people. This document has not only served the changing needs of American citizens, but has also served as an outstanding model for many developing democracies throughout the world.

It is significant that this basic document upon which our society is founded acknowledges the contributions which are derived through innovations. Article I, Section 8 of the Constitution reads as follows: "The Congress shall have power . . . to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." Congress acted quickly to implement the constitutional mandate by passing patent legislation as early as 1790. As a result, the United States patent system is an institution almost as old as the nation itself.

Every patent is a grant given to advance the public interest. The basic theory of the American patent system is that by offering legal protection to the inventor for a limited number of years, inventors will be encouraged to make inventive contributions and to disclose them fully so that they become public property at the expiration of the patent term. Much of the vigor of the technological advance of the United States has been attributed to its patent system which is capable of rewarding the investment of an inventor's time and energy.

Abraham Lincoln once said that the American patent system "supplied the fuel of incentive to the fires of genius." Changes in the patent system which would broaden its coverage and benefits are to be encouraged.

On May 23, 1930, President Hoover signed the Townsend-Purnell Plant Patent Act (46 Stat. 376). For the first time in the history of our nation the discoverer or originator of certain plants was given an option to seek legal protection for his contribution. In 1931, Plant Patent No. 1 was granted to the discoverer of a climbing rose variety, which was named New Dawn. In the years which have passed, more than 2700 Plant Patents have been granted by the United States Patent Office.

The motivation behind the enactment of this Plant Patent legislation may be readily learned by a reading of selected quotations which follow from Senate Report No. 315, dated April 2, 1930. The Report was directed to reasons for making certain new plants eligible for patent protection and was published at the time the Plant Patent bill was before the Senate. This Report states:

"The purpose of the bill is to afford agriculture, so far as practicable, the same opportunity to participate in the benefits of the patent system as has been given industry, and thus assist in placing agriculture on a basis of economic equality with industry."

"Today the plant breeder has no adequate financial incentive to enter upon his work. A new variety once it has left the hands of the breeder may be reproduced in unlimited quantity by all. The originator's only hope of financial reimbursement is through high prices for the comparatively few reproductions that he may dispose of during the first two or three years. After that time, depending upon the speed with which the plant may be asexually reproduced, the breeder loses all control of his discovery. Under the bill the originator will have control of his discovery during a period of 17 years, the same term as under industrial patents. If the new variety is successful, the breeder or discoverer can expect an adequate financial reward. Today plant breeding and research is dependent, in large part, upon Government funds to Governmental experiment stations, or the limited endeavors of the amateur breeder. It is hoped that the bill will afford a sound basis for investing capital in plant breeding and consequently stimulate plant development through private funds."

On September 23, 1954, President Eisenhower signed the only amendment (68 Stat. 1190) to the Plant Patent Act which provided for the patenting of certain newly found plants which had been excluded from patent protection in the past. The basic portions of the statute now read as follows:

"Whoever invents or discovers and asexually reproduces any distinct and new variety of plant, including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state, may obtain a patent therefor. * * *. (Title 35, Chapter 15, Section 161)

"In the case of a plant patent the grant shall be of the right to exclude others from asexually reproducing the plant or selling or using the plant so reproduced." (Title 35, Chapter 15, Section 163)

It is noteworthy that the grant of a Plant Patent, just as the grant of a patent in any other area of technology, deprives the public of nothing which it had prior to the act of the inventor or discoverer. One now is provided with an added incentive to develop, reproduce, and preserve certain new types of plants which otherwise may have never been developed or made available to the public. All patenting is done on a voluntary basis, and there is no requirement that an inventor or discoverer be compelled to avail himself of legal protection for his new

variety of plant. Anyone may apply for a Plant Patent except employees of the Patent Office. To the public is rightfully left the decision of whether a patented plant has value or is to be grown.

The test of time has proven the existing Plant Patent Act to be workable. More than 2700 Plant Patents have been issued by the Patent Office in the past thirty-seven years. The number of Plant Patents contested as to validity in the Federal Courts is less than a dozen, and no Plant Patent has been declared invalid as failing to meet the standard of unobviousness. Plant Patents have had a substantial impact upon the upgrading of the nursery industry, and a sound basis for investing capital in the breeding of plants which reproduce asexually has been provided. This has occurred through the development of superior new plant varieties brought about by the increased research efforts. Truly the development of new plant varieties by private industry has been stimulated by providing the originator with legal protection.

Since more Plant Patents have been granted on roses than any other plant, the new developments in this area during the past 37 years have been outstanding. The New Dawn rose which formed the subject matter of Plant Patent No. 1 made a significant breakthrough by providing a hardy, everblooming climbing rose. Plant Patent No. 23 was granted on one of the best known and widely grown of all florist roses named Better Times. Only now is this rose being replaced extensively with the rose of Plant Patent No. 2443 named Forever Yours. Plant Patent No. 169 was granted on the rose Tom Thumb which proved to be the forerunner of an entirely new type of miniature rose having a reduced plant and flower size.

The popularity gained by the Floribunda class of roses is typified by the subject matter of such patents as Plant Patent No. 340 (Betty Prior), Plant Patent No. 377 (Donald Prior), Plant Patent No. 362 (World's Fair), Plant Patent No. 789 (Fashion), Plant Patent No. 926 (Vogue) and Plant Patent No. 2594 (Apricot Nectar). Additionally, research and development justified by the Plant Patent Act has created an entirely new class of roses known as the Grandifloras. The first of these was the subject matter of Plant Patent No. 1259 (Queen Elizabeth), followed by Plant Patent No. 1383 (Montezuma), Plant Patent No. 2056 (John S. Armstrong), Plant Patent No. 2132 (Mount Shasta), Plant Patent No. 2371 (Camelot), and others. Completely new colors in roses have come about as in Plant Patent No. 1969 (Tropicana), a brilliant orange; and Plant Patent No. 1433 (Sterling Silver), a lavender, which was followed by Plant Patent No. 1672 (Lavender Girl) and Plant Patent No. 1847 (Simone). Significant improvements in fragrance are typified in Plant Patent No. 1167 (Chrysler Imperial), Plant Patent No. 1304 (Tiffany), Plant Patent No. 1759 (Pink Peace), and Plant Patent No. 2326 (Oklahoma). Plant Patent No. 2463 (Sea Foam) is directed to a freely flowering shrub rose having hardy disease-free qualities which make it particularly adapted for use in commercial, industrial, or highway landscaping where air pollution may have an adverse effect on other less hardy plantings.

Additionally, Plant Patents have been granted on a large number of plants which reproduce asexually other than roses. For instance, many new and distinct plants have been patented which are capable of producing fruit such as peaches, apples, nectarines, plums, strawberries, avocados, etc. New varieties of shrubs and hedge plants, trees and evergreens, flowering plants, tropical and house plants, grasses, and vines have also served as the subject matter for Plant Patent protection.

To one skilled in the sciences of botany, agronomy, or horticulture it will be apparent that in the Plant Patent Act as it exists today is of limited scope, and that it offers no protection for many important plants. More specifically, the Plant Patent Act now provides protection for new varieties of plants which are reproduced asexually, but is totally inapplicable to new plants which reproduce sexually. Asexual reproduction of a plant involves vegetative propagation by such means as grafting, budding, cuttings, layering division, and the like, but not by a sexual process which generally is the process when seeds are involved. Asexual reproduction is specified in the Plant Patent Act because this method of propagation generally insures the continuation of the new and distinct characteristics of the plant through succeeding generations.

Improved and commonly known plant breeding techniques developed in recent years have provided numerous varieties of sexually reproduced plants which are also capable of reproducing true to form, so that the characteristics of the plant variety are maintained in the progeny. It accordingly follows that the distinction drawn in the Plant Patent Act between plants which reproduce asexually

and plants which reproduce sexually is artificial, and that the Act should be broadened to include plants which reproduce sexually so that greater benefits may be derived from the patent system.

Illustrative examples of plant breeding techniques frequently utilized by plant breeders in their efforts to develop new plant varieties are as follows: (1) pedigree or progeny row method, (2) bulk or mass of strains method, (3) back-cross method, (4) mass selection method, (5) pure line method, and (6) direct selection in segregating populations method. In producing F_1 hybrid plants the following techniques have been utilized: (1) gynoeious plant method, (2) dioecious plant method, (3) mechanical method, (4) cytoplasmic sterile method, (5) balanced tertiary trisomic method, (6) gameticide method, (7) genetic sterile method, and (8) self-incompatibility method.

MOTIVATION FOR INTEREST IN NEW PLANT VARIETIES

In the United States today there is an increasing public awareness among responsible citizens of the growing demands which are being placed upon plants to meet many of the imperative needs of the world. Such growing demands stem largely from an increasing world population. We are reminded that for hundreds of thousands of years, from the beginning of life on earth to the start of this century, the population of the world increased relatively slowly, and that in recent years this condition has changed drastically. For instance, the population of the world is now estimated to be in excess of three billion, while the population in 1900 numbered only about 1.5 billion. If the present trend continues we are informed that the world population will more than double itself in the next thirty years. It is also reported that the United States population is expected to double in the next four decades, and that today suitable farming land is being gobbled up in this country by suburban housing, shopping centers and airports at the rate of about one million acres per year.

Since the basic material needs for an increasing population can be predicted, increasing demands upon the agricultural production of the world are inevitable. Substantially expanded quantities of animal feed derived from plants will be required in the future to support man's need for increased livestock production. Alarming reports even now indicate that at least half of the world's population endures some degree of malnutrition, and that the world population is increasing at an even faster rate than the present rate of increase in world food production. Recent reports of the Food and Agricultural Organization (FAO) of the United Nations show that only a few nations of the world are actually increasing their agricultural production in spite of growing populations.

There has also been a trend in large regions such as India, Africa, and South America to change from the exporting of food to the importing of food. Conversely, only a few nations such as the United States, Canada, Australia, and New Zealand still export appreciable quantities of food to help fight starvation. Even the Soviet Union became an importer of millions of tons of wheat because of bad crops in 1963 and 1966. Also, totally apart from the needs of livestock and the direct food needs of man in the coming years, will be the need for ever increasing quantities of natural fiber, e.g., cotton, and other plant products. Improvements in plant products, such as cotton fibers, would be expected to lead to increased competition with synthetic products and to provide the consumer with a broader selection of articles of commerce.

It is recognized that agricultural production may be increased in several important ways which include mechanization of farm equipment, use of fertilizers and pesticides, and favorable weather. Improved plant varieties can also be a prime factor in meeting these foreseeable production demands. Applied plant research must keep pace with these demands.

Man's increased leisure time has also brought an increased interest in gardening and the enhancement of the American landscape through the beauty of plants. Such aesthetic considerations are considered to be of substantial importance to mankind's well-being.

PROVEN CAPABILITY OF PLANT BREEDING RESEARCH

During the past half century plant breeding and the production of new plant varieties have become a recognized science. This development has been attributed by many to a rediscovery of Mendel's Laws of Heredity which has provided a basis for sound plant research efforts. Although the results of heredity obtained through controlled plant matings as well as other characteristics of plant repro-

duction have been observed for hundreds of years, man's concerted investigation of these principles and their practical application has occurred largely in the twentieth century. A vast amount of data on existing plant varieties has been assembled and cataloged which provides a starting point for the development of useful new varieties of plants. Many American colleges and universities offer students the opportunity to include courses in the science of plant breeding and related disciplines within their studies. As a result, technically trained scientists are now available who are capable of carrying out meaningful plant research.

The role of plant breeding has been stated and restated many times in numerous publications both technical and popular. Hays and Immer present a brief discussion of its role in their treatise titled "Methods of Plant Breeding" published in 1942 (McGraw-Hill, New York, N.Y.). Their statement as presented below is considered as pertinent today as in 1942:

"There is a growing appreciation of the value of plant breeding as a means of obtaining new or improved plant forms adapted to a wide variety of uses. Although most important food plants had been brought under cultivation before the dawn of recorded history, there remains at present almost an unlimited opportunity to improve the varieties of plants available for various agricultural uses and in some cases greatly to modify their characters. The primary purpose is to obtain or produce varieties or hybrids that are efficient in their use of plants nutrients, that give the greatest return of high quality products per acre or unit area in relation to cost and ease of production, and that are adapted to the needs of the grower and consumer.

"It is also of great importance to obtain varieties that are able to withstand extreme conditions of cold or drought or that have resistance to pathogenic diseases or insect pests. Such qualities help materially to stabilize yields by controlling extreme fluctuations."

A 1966 report prepared by a panel of eminent scientists under the auspices of the National Academy of Sciences entitled *The Plant Sciences Now and in the Coming Decade* emphasizes the capability of plant research. "The plant sciences," it says "have entered upon a period of exciting new developments which are opening totally new vistas in our understanding of plant life, and at the same time are providing revolutionary applications to agriculture and to food technology. In this respect," it adds, "some of the work in plant science parallels in time and in importance the breakthrough discoveries in physics that have led to the tapping of nuclear energy."

When the present Plant Patent Act was enacted in 1930, the improvement of crop varieties through plant breeding, based upon the scientific application of genetics, pathology, physiology, cytogenetics and related disciplines, was still in its infancy. Plant breeding conducted by commercial firms and supported by corporate funds has evolved as in industry largely since 1930. Also, the number of firms engaged in private plant breeding research, particularly with non-hybrid crops, has greatly increased since 1950. Progress currently being made in the plant sciences can be attributed to the combined efforts of dedicated scientists working in both public and private institutions. The culmination of this research has resulted in the release of new and improved varieties of plants.

As reported in the *Agricultural Science Newsletter*, March 1966, Vol. 2, No. 2: "The total expenditures for agricultural research by the private sector of the economy appear to be approximately \$400 million which is roughly equal to the appropriations for the research in the U.S. Department of Agriculture combined with the state agricultural experiment stations."

Other data indicates that the plant breeding and related research expenditures of private industry have actually surpassed the expenditures of state and federal institutions for similar research. During recent years there properly has been a trend for publicly supported institutions to direct their plant research efforts to the development of basic plant breeding materials and plant breeding methods. Such efforts have contributed much to the recognition of plant breeding as an established science. For instance, through the work of the USDA over 52,000 accessions of plant germ plasm collected from many parts of the world have been assembled, catalogued and preserved at the National Seed Storage Laboratory located at Fort Collins, Colorado, and made available to any *bona fide* plant researcher in the United States. Such germ plasm is the plant substance of life by which hereditary traits are transmitted and has served as a useful starting material for further research. The plant research efforts of private industry have been directed primarily to the time-consuming development of useful new plant varieties which are marketable and of economic importance.

As has been previously indicated, over 2700 new asexually reproduced plants have been made the subject matter of United States patents. As a natural outgrowth of the increased research fostered by the Plant Patent Act many improvements have been forthcoming. In fruits and nuts resulting from new varieties we have experienced improved flavor, better form, increased size, increased yields, and harvests spread over longer seasons. Also, fruit trees have been developed which may be mechanically planted and harvested to produce a fruit which can withstand mechanical grading, and is capable of exhibiting improved keeping qualities. In fact, improvements in fruits have been so great that many fruits which were popular forty years ago have been entirely supplanted by newly developed varieties.

In patented ornamentals the public has seen improvements in the form of the plant, in vigor of plant growth, hardness, and disease resistance. Flowers produced on many patented plants have exhibited improved form, color, fragrance, and lasting qualities. Only a few of the varieties of roses and chrysanthemums which were grown in our gardens in 1930 are still commercially available because they have been replaced by new and improved varieties. It is estimated that of the fifty million garden rose plants produced annually in the United States (approximate wholesale value in excess of \$35,000,000) over 80 percent of these are or have been patented. It is further estimated that of the approximately 20 million rose bushes growing in greenhouses in this country for the production of cut blooms, more than 90 percent of these rose plants are varieties that are or have been patented. From these greenhouse plants over 300 million blooms are sold annually having a wholesale value in excess of \$50,000,000.

Important strides forward have also been made since about 1900 in the development of new varieties of plants which reproduce sexually, i.e., by seed. The 88th edition of the *Statistical Abstract of the United States* (1967), produced by the U.S. Department of Commerce, Bureau of The Census, reports the following crop values of certain representative agricultural crops in the United States together with increased yields per acre realized since 1935.

[Dollar amounts in millions]

Crop	Annual farm value 1966	Yield per acre 1931-35	Yield per acre 1966
Corn.....	\$5,285	23.3 bushels.....	72.1 bushels.
Wheat.....	2,142	13.1 bushels.....	26.3 bushels.
Oats.....	539	25.9 bushels.....	44.7 bushels.
Barley.....	408	20.0 bushels.....	38.1 bushels.
Rice.....	405	2,135 pounds.....	4,324 pounds.
Rye.....	30	11.1 bushels.....	21.8 bushels.
Sorghums for grain.....	747	13.3 bushels.....	56.1 bushels.
Soybeans.....	2,583	15.4 bushels.....	25.4 bushels

The widely publicized yields presently attainable by American agriculture may be attributed to a considerable degree to the new varieties of plants currently being grown by the American farmer. Clearly the vast majority of plants capable of producing economically important crops are currently outside the scope of the existing Plant Patent Act.

Plant research conducted by the hybrid corn industry has been a major contributor to increased farm income. The expanded plant research effort which has been focused on this crop has been made possible because of protection inherently provided to the originator of a new hybrid through the control of inbred lines found capable of producing the hybrid. It is estimated that prior to the introduction of hybrid corn, in excess of one thousand open-pollinated varieties of corn were grown in the United States. Yields from such plants were low in comparison with today's corn crops. For instance, from 1923 to 1932 the United States produced an average yield of corn of 25.4 bushels per acre. The first seed company for the production of commercial hybrid corn was organized in 1926, and was followed by the formation of several more companies in about

1932. In 1933 only 0.3 per cent of all the corn planted in this country was of a hybrid variety, whereas in excess of 95 per cent of the corn planted in 1960 was of an improved hybrid variety (G. F. Sprague, *1961 Year Book of Agriculture*, USDA). The average corn yield had grown to 53.4 bushels per acre in 1960 compared to 40.7 bushels per acre in 1952. In 1967 the average corn yield in the United States was estimated by the USDA to be 76.6 bushels per acre. Yield increases from 1932 to 1952 were primarily the result of the growing of newly developed F1 hybrid plants, while the increases reported in 1960, and those still being experienced today are increasingly due to the use of fertilizers, herbicides, insecticides, etc.

Nevertheless, it has been the use of improved plant varieties having high inherent yield potentials which has afforded a base upon which to apply knowledge from other areas to improve production. In many areas corn yields of over 100 bushels per acre are now achievable. In fact, knowledgeable plant scientists have predicted that corn yields of 500 bushels per acre are possible in the future through the use of improved plants and improved farming practices. The advantages currently being derived from hybrid corn varieties have also been reflected in a substantial increase in the acreage planted in corn by the American farmer.

Today, members of the research staffs of the hybrid seed corn companies in the United States are listed among the outstanding research workers on corn in the world. These men are recognized not only in the field of genetics and plant breeding, but also in the related disciplines of physiology, agronomy, pathology, and botany. American companies have developed multimillion dollar capital investments for storing, processing, and the distribution of seeds capable of growing improved hybrid corn varieties. Without the research of these scientists American agriculture would likely not be enjoying its present distinction of producing the world's highest corn production per acre at the lowest cost per unit.

During the ten year period immediately prior to the introduction of hybrid sorghum in 1955, the average yield of this grain harvested in the United States is reported to be 19 bushels per acre. During the five year period 1959-1963, in which the planting of hybrid sorghum became almost universal, the average yield increased 118 per cent to 41.4 bushels per acre. Consequently hybrid sorghum has provided the basis for major changes in the status of grain sorghum as a cash crop, not only in traditional sorghum producing areas of the country, but in many areas in which the crop was previously of minor significance. While the planting of hybrid sorghum may not be given credit for all of the increased sorghum yield, the use of superior hybrids has provided a base upon which farmers can intelligently apply fertilizers, herbicides, insecticides, irrigation and other practices of modern agriculture.

Various new and improved varieties of grains have been developed in recent years which are resistant to diseases which have decreased productivity in the past, such as rusts, blights, and mildew. Also, it is estimated that improved varieties of cotton developed by commercial plant breeders were grown on about 80 per cent of the cotton acreage of the United States in 1965. Much greater advances could be made in the development of new varieties of plants which reproduce sexually if legal protection were available to the originators of such plants.

LEGAL PROTECTION IS NEEDED FOR NEW VARIETIES OF PLANTS REGARDLESS OF WHETHER THE PLANTS REPRODUCE SEXUALLY OR ASEXUALLY

The plant breeder in the United States is an innovator and creator of products of immense value to the well-being of our nation. Many new plant varieties may be reproduced or "manufactured" in the same form year after year provided the necessary procedures are followed. Conversely, innovations made in other areas of technology such as in the mechanical or chemical arts may be manufactured in great numbers. The ability of plant varieties to reproduce true to form is recognized by those skilled in the biological sciences in general, by the federal and state seed laws, by seed certification regulations, by the seed trade, by farmers, and by the consumers of farm products.

Agricultural research as well as industrial research can only be financed if the efforts of the researchers are in some manner rewarded where useful results are achieved. This means that protection against the taking by others of the products of research must be provided. Today there is wide acceptance for the philosophy that public funds should not be expended where industry is capable

and willing to conduct applied research. The inventor of plants which reproduce sexually (i.e., by seed) is entitled to the same consideration and encouragement as provided innovators in other areas of technology.

The originator of a new sexually reproduced variety today is provided no legal protection under the Plant Patent Act regardless of the new plant's merit. When one considers that the bulk of the economically important plants grown in this country reproduce by seeds, the inadequacies of the Plant Patent Act in its present form are apparent. No country other than the United States is known to make a distinction between plants which reproduce sexually and plants which reproduce asexually in its system for the legal protection of new plant varieties.

Plant breeding research is expensive and time consuming. For instance, it is not uncommon for the development of a single new plant variety to require the growth, care, observation, and selection of thousands of plantings annually spread over a period of ten years. Once an improved straight crop variety as compared to an F_1 hybrid is released in channels of commerce by the originator, it may be rapidly increased by others without going back to the original breeding stock. Firms which have incurred none of the cost of research and variety introduction are able to purchase and grow the seed of the new variety, and to produce and sell huge quantities of the seed for growing purposes the following year at a price below that of the originator. Such firms, in compliance with the Federal Seed Act, use in commerce the identical variety name for their products as was chosen by the inventor. Often the originator of a new variety of a sexually reproduced crop finds that sales are substantially reduced after the first year of introduction and that the market demand is being filled by other firms. Since recoupment of the originator's breeding costs during the year of introduction of the new variety is seldom possible, private plant breeders are entitled to more assurance than presently provided of recovering a reasonable return for their investment of time, facilities and money.

As has been indicated, the developer of a new sexually reproduced variety generally finds that he cannot benefit from his contribution in a manner commensurate with its value and acceptance. For instance, results of planter box surveys conducted in Texas indicate that the cotton producers in that state plant no more than 10 per cent of their acreage with seed purchased from the variety originator.

One cotton firm reports the cost of developing a leading variety of cotton at \$572,000 prior to its introduction, and its total cotton breeding costs during the years the new variety was under development at \$1,145,988. Approximately one-half of the firm's total breeding costs were attributed to the variety in question since it was estimated that a portion of these costs was properly apportioned to varieties to be released in the future. During a recent five year period 88 to 94 per cent of the cotton acreage of a southern state was planted in two varieties developed by this cotton firm. However, during the same period the company sold only enough seed of these varieties to plant 10 to 15 per cent of the state's cotton acreage. Similar disparities were reported in other states where a significant percentage of the cotton acreage was planted in the varieties of the breeder. Losses amounting to \$234,130 have been incurred by the firm's cottonseed operation since the variety was released.

It is estimated that cotton varieties developed by another leading cotton breeder are grown on 30 per cent of the entire United States cotton acreage. However, reports from this firm indicate that it sold no more than 5 per cent of the cottonseed used to grow the varieties it originated. In view of facts such as these the commercial cotton breeder is provided little incentive to invest in costly research in spite of repeated references in the literature of the industry that an expanded research effort is needed if the industry is to survive.

In recent years soybeans have become a crop of increasing importance in the United States where it is estimated that more than two-thirds of the total world soybean production is grown. Since the United States exports nearly one-half of its soybean crop in one form or another, the value of this export, which is in excess of one billion dollars annually, has aided substantially our nation's balance of payments. The soybean plant breeder has often gone unrewarded, however. For instance, a southern state in 1966 planted over 750,000 bushels of a leading variety of soybeans, while the originator and his authorized agents supplied only 14,000 bushels of this amount. The cost of developing the variety in question was \$91,000, and losses incurred in the originator's soybean operation since the variety was released have amounted to \$163,000. Examples such as these indicate why private industry is so desperately seeking legal protection for the inventors of new plant varieties which reproduce sexually. The implications

of such losses can be assumed to have a great impact upon private plant breeding research in the future.

Similar problems in attempting to justify private plant breeding research are presented with respect to numerous other plants which reproduce sexually. Included are plants capable of producing the cereals to which much of the world looks for livestock feed, and food for direct human consumption, as well as plants capable of meeting man's fiber needs.

In the absence of patent protection for new varieties of plants which reproduce sexually, commercial plant breeders have been forced to search for areas where the product of their research is capable of being afforded some other type of protection. For instance, hybridization technology has provided the originator with inherent genetic protection. Since the plant grown from an F_1 hybrid seed is incapable of producing seed which will yield a plant having the same qualities, the breeder's customers are required to return year after year for more seed if they elect to continue the growing of the same hybrid plant. The originator simply maintains control of the parent lines which he has found produce the desirable hybrid, and others are precluded from gaining access to he same. In fact, many commercial plant breeders have concentrated their efforts entirely upon the development of improved hybrids and have avoided new straight crop varieties which reproduce true to form year after year but which cannot be protected. To date it has been impossible, however, to develop useful hybrids of many important crops, to say nothing of the research opportunities which are being by-passed due to the absence of an incentive in the non-hybrid area.

Since the American Patent System has proven to be a highly workable means for promoting progress in many areas of technology, it is urged that the existing Plant Patent Act be amended to make eligible for patent protection new varieties of plants whether they reproduce sexually or asexually. The type of voluntary protection offered by the Patent System is preferred to the other possible types of protection administered by regulatory governmental agencies. The proof of patentability, and the enforcement of the patent right granted, would be the responsibility of the applicant. The USDA would have no burden to enforce the patent right. The examination by the Patent Office of patent applications directed to sexually reproduced plants would be accomplished in a manner identical to that used for applications directed to asexually reproduced plants. A Patent Examiner trained in plant taxonomy and plant breeding technology would exercise the same degree of competence as an Examiner considering innovations in other areas of scientific endeavor. Testing is not now and would not be a condition precedent to the grant of a patent. The advantages of having a uniform national system of legal protection would be possible, rather than the complexities of piecemeal state legislation. Also, the Plant Patents granted would serve as an efficient vehicle for licensing arrangements.

The proposed amendment would alter in no manner the characteristics of any unexpired Plant Patent now in existence. Plant Patents would continue to be granted to the inventors of *new varieties of plants* and would offer no protection for plant products in detached form such as cut flowers, fruits, seeds, cotton fibers, etc., even though such products were formed upon a *plant* of a patented variety.

Title 35 U.S.C. 162 refers to the type of claim to be used in a Plant Patent, and reads in part as follows: "The claim in the specification shall be in formal terms to the plant shown and described."

Since it is a recognized principle of Patent Law that the claim or claims appearing at the end of a patent define the enforceable limits of the patentee's legal protection, no valid basis exists in the Plant Patent Act in its present or amended form for asserting that *plant products* such as seeds are "patented."

Under an amended Plant Patent Act those purchasing seed capable of growing a patented plant variety from an authorized source would receive an implied license to grow the seed they have purchased and to thereby reproduce plants of the patented variety. The implied license to sexually reproduce the patented plant granted to those purchasing seed from an authorized source would be limited to reproduction using the exact seed purchased. Unless otherwise provided, this license would not authorize further reproductions of the patented plant using seed derived from other sources, such as that produced on plants grown by the purchaser. For the purposes of the statute sexual reproduction of a patented plant would be deemed to have occurred once seed capable of producing the plant had germinated and another plant of the same variety had come into being.

It is significant to note that the final sentence of Title 35 U.S.C. 103 provides that: "Patentability shall not be negated by the manner in which the invention was made."

This provision in the existing legislation is applicable to the patentability of all inventions, including inventions involving new plant varieties. Additionally, the facts indicate that the development of a new plant variety involves as much inventive effort as is required in any other area of technology in which patents are currently granted. The ingenuity required to develop a useful new plant variety when fully appreciated is believed to comply with any reasonable application of the prerequisites for patentability.

As with all Plant Patents, no form of generic protection would be provided in the grant of a patent directed to a new variety of plant which reproduces sexually. The plant described in the patent application would be the subject matter of the patent grant. Patent protection would be made available for the first time under an amended Plant Patent Act for a novel and distinctive plant variety once it is sexually reproduced. Such a plant variety would be eligible for patent protection if it (1) reproduces sexually to produce progeny having the same characteristics as the parent, or (2) is an F_1 hybrid plant variety which may be consistently formed through sexual reproduction involving the mating of diverse parent lines which have been found capable of producing the variety. The patent grant awarded to the inventor of a new plant variety which reproduces sexually would in no manner interfere with the use of seed capable of producing the variety for purposes other than reproduction, or interfere with the free use of germ plasma from the plant by researchers for the development of different plant varieties.

ANTICIPATED BENEFITS

The grant of legal protection to the inventors of new varieties of plants which reproduce sexually will provide a new dimension to plant research conducted by private industry. The one missing link needed to encourage more research in this area has been the need for a reasonable assurance that research and development funds may be recovered when a valuable contribution is made. The United States Patent System is considered capable of providing the stimulus required to promote broad advances in all areas of plant breeding technology.

Plant scientists have indicated a willingness to substantially increase research efforts if provided legal protection within the framework of the Plant Patent Act for new varieties of plants which reproduce sexually. The amendment of the Plant Patent Act to eliminate its present deficiency will effectively remove the hesitancy of plant breeders to invest their time and resources in the development of new plants which, if currently introduced, may be freely reproduced to the financial gain of others without any reimbursement being paid to the plant's originator. More useful new plant varieties than ever before would be expected to be produced through increased research efforts to the substantial benefit of the consumer, and industry would be provided the possibility of recouping development costs when a contribution is made.

One need only consider the amount of research presently being conducted in other areas of plant technology where the innovator already has some mode of protection to realize the potential benefits derivable from an amendment of the Plant Patent Act. The existing legislation has worked remarkably well to encourage the development of new plants which reproduce asexually. Also, the genetic protection inherently possible to the originator of F_1 hybrids has fostered a concerted research effort in hybridization technology. The substantial progress made possible through extensive plant research in these areas is already established.

The plant breeding industry affirms that greater advancement may be made in the development of new straight crop varieties of plants which reproduce sexually as a result of more extensive research. New and improved varieties of such plants can better enable mankind to meet the predicted food, livestock feed, and fiber needs of the coming decades.

Increased competition in the development of new plant varieties among the various segments of our free enterprise system would be expected to reap substantial benefits for the American public. The American farmer would be expected to make a more discriminating selection of the plant variety he grows, and inferior products would not become established. The increased availability of planting seed would be promoted as seed capable of growing new plant varieties is placed on the market. Historically the consumer has been the principal

recipient of benefits from improvements derived from research. For instance, without a doubt the major beneficiaries of the developments in commercial corn and sorghum hybrids have been, and will continue to be, the American farmer and the consumer of the products he produces in increasing quantities at continually lower costs per unit.

Farmers do not object to the increased costs of hybrid corn and sorghum planting seeds in comparison to the costs of available open-pollinated planting seeds of the same crops for good reason. Prices paid for improved plants with higher yield potential, improved qualities, adaption to mechanical harvest and other superior characteristics represent a good investment, and the cost of the seed capable of producing the plant, even at increased prices, represents a minor portion of the total cost of production. As a result, the unit cost of the resulting crop will be lower than if the farmer had elected to plant a less expensive seed. Similar conditions would be expected to develop upon the introduction of improved patented non-hybrid varieties of plants which reproduce by seed. If at any point the farmer feels the economics are not in his favor he is free to grow a non-patented variety.

The grant of legal protection to the inventor of a new variety of plant which reproduces by seed would make possible the more efficient marketing of the variety together with instructions to the farmer for improving the quality and quantity of his harvest. Under such conditions the patent owner could well afford to conduct a more extensive consumer education program since he and his authorized agents alone would benefit during the life of the patent from the increased sales generated by the distribution of data concerning the new variety. No variety is of value to the consuming public until it is brought to the public's attention and the value of its inherent improvements established in the market place. The merchandising of planting seed of a variety having superior performance qualities is no different than the merchandising of any other new product. The new product is largely valueless until produced in quantity at prices the consumer will pay, and actually sold and used. For this reason efficient marketing techniques are to be encouraged so that maximum benefits to the public are derived.

The anticipated contributions made to mankind through an expanded plant research effort would also be expected to justifiably enhance the United States politically in the eyes of the world.

CONCLUSION

The amendment of the Plant Patent Act, to make eligible for patent protection new and distinct plant varieties which reproduce sexually is strongly urged.

AMERICAN SEED TRADE ASSOCIATION, INC.,
Washington, D.C., February 28, 1968.

HON. JOHN L. MCCLELLAN,
Chairman, Subcommittee on Patents, Copyrights and Trademarks, U.S. Senate,
Washington, D.C.

DEAR SENATOR MCCLELLAN: The American Seed Trade Association would like to request the following letter, with enclosures, be filed for the hearing record on S. 1642.

During the Subcommittee hearings of February 1, 1968, two important questions were raised pertaining to amendments to the Plant Patent Act. They were: (1) Reproducibility true-to-type; and (2) Enforcement.

To further clarify the record, we are submitting statements from ten (10) of the top industry plant breeders who have given scientific backing to ASTA and the NCCPB's contention that sexually reproduced plants do reproduce true-to-type and, plant patents in this area would be enforceable. We do hope this information will be helpful to the subcommittee.

Favorable consideration of our request to have this filed for the committee record would be appreciated.

Very truly yours,

JOHN I. SUTHERLAND,
Executive Vice President.

[Enclosures.]

COKER'S PEDIGREED SEED CO.,
Hartsville, S.C., February 19, 1968.

MR. JOHN SUTHERLAND,
Executive Secretary, National Council of
Commercial Plant Breeders, Washington, D.C.

DEAR MR. SUTHERLAND: My attention has been directed to the fact that in connection with consideration of the amending of the Plant Patent Act (Amendment No. 511 to S. 1042) questions have been raised as to whether plants that are produced by seed (sexually) can be reproduced true to form sufficiently for purpose of enforcement of a patent. I am taking this means to present some information on this subject and I shall appreciate your filing this letter with the Hearing Clerk of the Subcommittee on Patents, Trademarks, and Copyrights of the Senate Committee on the Judiciary.

Among many reasons that discredit the fallacious concept that plants that are propagated by seed can not be reproduced true to form sufficiently for purposes of enforcement of a patent are: (1) the type of procedures followed on developing new and improved varieties, (2) the acceptance of variety identity in the administration of the Federal Seed Laws, (3) the acceptance of variety identity in the programs of official seed certification agencies, (4) the recognition of specific varieties by farmers and by processors of crop products.

There are two popular but mistaken beliefs regarding the methods of developing improved varieties of crops by plant breeding. One of these is that they are developed through mysterious methods of wizards possessing supernatural powers. The other is that better varieties are chance findings by breeders who "lucked-up" on them. As indicated neither of these concepts is true. The development of an improved agricultural variety is the result of a well-planned, carefully conducted procedure in which desirable characteristics are combined into a single variety, usually by selection following hybridization, and frequently, by repeated back crossing. We can appropriately say that the plant breeder uses plans and techniques in much the same manner that a building engineer uses blue prints, materials, and construction methods. The plant breeder's blue prints are a description of what he expects to obtain in the end. His materials are the stocks carrying the genetic germ plasma that he uses in obtaining these new combinations of characteristics such as high yield, earliness, desirable quality, and disease resistance. His construction methods are the techniques that he uses in obtaining proper sources of germ plasma, in making crosses and back-crosses involving two or more of them and resulting progenies, in selection within offspring of such of crosses to isolate and stabilize promising individuals, in increasing quantity of seed, and in determining and proving the genetic stability and the performance of his newly created varieties. The plant breeder's developed varieties are equivalent to the finished building of the construction engineer. Thus, the modern crop variety is the result of fixing in a positive way the genetic characteristics of the variety. The breeder, and in turn the farmer, have an economic interest in it because, in addition to its agricultural and utilization value, it can be reproduced true to form. Once the variety is developed, today's commercial plant breeder is well-equipped to properly increase the seed and to harvest and process it and to distribute it to the farmer. The commercial breeder employs plant breeding techniques to maintain his varieties and to assure the farmer that he can and does receive seed of varieties of known characteristics and of known performance.

One of the fundamental principles used in the enforcement of the Federal Seed Laws is the identification of varieties. The regulations require that no one variety can be given two or more names and that a name can not be given to more than one variety. Certainly the facts of varietal identification and known performance were accepted in the writing of the regulations and are tools used in the administration of the laws.

The seed certification programs of the Crop Improvement Associations in the separate states and of the International Crop Improvement Association have been acclaimed as an effective way of assuring the American farmer that he is receiving seed of a known variety with known performance. Certainly, the fact of identification is a basic requirement for these programs that have led to the Crop Improvement Associations being authorized by state legislatures as the official certification agency in most of the states.

The selection of the proper variety is very important in a farmer's crop production operations. He knows the names of the varieties that he has come to

feel that he should grow. He is acquainted with their characteristics and how they will perform under his weather and soil conditions and he knows how they are adapted to his production and harvesting practices. Furthermore, he knows that the processor or distributor that buys the products produced by the varieties in turn knows the qualities of the variety and frequently buys the products and pays for them on the basis of variety. Thus the farmer goes to the breeder and asks for seed of a named variety and he knows that he will get it. Everyone who is properly informed about crop performance knows how important variety is and knows that modern crop production is possible, among other things, because varieties can be identified.

We respectfully submit that these circumstances are positive proof of the fact that plants propagated by seed that result from modern scientific breeding programs will reproduce true to form sufficiently for purposes of enforcement of a patent. We call attention to the fact that it would be very unfortunate if the fallacious concept that this is not the case were to be used to prevent the breeder of sexually propagated plants from obtaining patent protection and in turn to deprive the American farmers of reliable sources of planting seeds of varieties that could be bred to meet his modern day needs.

Sincerely,

J. WINSTON NEELY,
Vice President and Director of Plant Breeding.

L. TEWELES SEED CO.,
Milwaukee, Wis., February 20, 1968.

MR. JOHN SUTHERLAND,
*Executive Secretary, National Council of Commercial Plant Breeders,
Washington, D.C.*

DEAR MR. SUTHERLAND: This letter is being written to you in the hope that you will file it with the Hearing Clerk for the Plant Patent Act Amendment Subcommittee Record.

It is the opinion of our professional scientists, as well as my own, that given reasonable care, sexually-reproduced plants will reproduce true to type year after year. In order to expand on this point, we would like to break the crops down into three specific categories:

(1) Self-pollinating crops of oats, wheat, barley, peas, soybeans, beans, etc. By reasonably careful seed increase programs, any and all off-types can be screened or rogued out, and therefore the self-pollinating crops will unequivocally breed true to type.

(2) Another class of 100% reproducible types are the crops that are reproduced by a cross-pollinated cross in which inbred lines have been established and F₁ hybrids are produced under controlled pollination system, using mainly male sterility as the control mechanism. Other mechanical and genetic mechanisms do exist (de-tasseling and floral dimorphism). Crops falling into such a scheme are corn, onions, sugar beets, sorghum, alfalfa and wheat. It is recognized by breeders and production personnel that selection and maintenance of the breeding stock or inbreds involves roguing for outcrosses to maintain the genetic purity.

(3) Some crops can be sexually reproduced true to type by a synthetic process. In this case, it is mandatory that the breeder properly isolate gene pools into which certain plant characteristics are predetermined and maintained by selection. In such systems the varieties are maintained in a stable fashion by reproducing from original breeder's stock seed. Should this breeder's stock seed be exhausted or an improvement be made on the stock seed, of course a patent would not be expected to apply. Under these circumstances, it is common for the breeder to build up a supply of true-to-type foundation seed that will last for the life of the variety. Example of such crops are cotton, alfalfa synthetics, sugar beet synthetics, etc.

Considering the above technical justification, we would like to emphatically stress that there is indeed every scientific and logical reason to include sexually reproduced plants under the Plant Patent Act.

Very truly yours,

ROBERT L. TEWELES,
Vice President, Research and Production.

CALABINO FARM SEEDS, INC.,
Woodland, Calif., February 20, 1968.

Dr. JOHN SUTHERLAND,

*Executive Secretary, National Council of Commercial Plant Breeders,
Washington, D.C.*

DEAR MR. SUTHERLAND: This letter summarizes my viewpoints regarding the constancy of reproduction of seed propagated plants. I trust you will file this statement with the Hearing Clerk for the Subcommittee holding hearings relative to the Plant Patent Act Amendments.

Seed propagated plants can be classified in several ways on the basis of their method of pollination. This is important in respect to an understanding of the genetic variability which may occur within a variety and also in respect to the procedures which must be used to maintain varietal purity.

1. Plants normally reproduce by self-pollination.

This is a large group of field and horticultural crops. A few examples are the cereal grains wheat, oats, barley and rice, many important legumes such as soybeans, beans, peas, cowpeas, and other important crops such as tomatoes, safflower, tobacco, flax, etc. Within this group of plants some exhibit almost zero cross pollination under normal growth conditions and others may exhibit as much as 3-4% of cross pollination. Perhaps of greater importance than cross pollination values is the fact that in the development of varieties in self pollinated plants the originator normally practices pure-line breeding methods and thus an improved strain is homozygous (pure) for its characteristics. Hence the very low values of cross pollination that may occur in properly isolated fields is indeed no different in effect than normal self pollination because any crossing that may occur will be between plants of the same genotype. In the seed multiplication for varieties in this group there normally is a program to maintain genetic purity by frequent progeny-row testing. The fact that many important crop varieties in this group have records of 20 years or more of use is testimony that their genetic composition has been maintained intact.

2. Plants often cross pollinated.

This group of field and horticultural crops is intermediate in cross pollination to the one above and the one listed below. Investigators are not always certain about the degree of cross pollination for some of the crops in this group. A few examples in field crops are grain sorghum, Sudangrass and cotton.

Plant breeders usually treat crops in this group in much the same way as those crops that are normally self pollinated except that in breeding nurseries selected plants are protected (by bagging heads) from outcrossing. After a pure line variety has been developed it is necessary to use greater precautions in seed multiplication to avoid outcrossing with other varieties.

Because selected varieties in this group also are pure lines when they are released, the constancy of their genetic characteristics is the same as for the naturally self pollinated group of plants. Many of the older sorghum varieties were maintained as distinct varieties for a long time and present-day cotton varieties—because of the care used to maintain purity—have the same characteristics as carefully bred into them.

3. Plants normally cross pollinated.

This group of field and horticultural plants comprises the largest number of species and ecotypes. Special genetic systems have been evolved in the evolutionary development of these species to insure a high level of natural cross pollination and the maintenance of genetic variability and hybridity. These attributes have given these crop species very definite advantages in survival and have resulted in the ecotype concepts for specific entities that have produced sub-populations better adapted to a specific ecological situation.

When pollination is controlled in most of these species the inbred progenies show reduction in vigor and consequently the end product of breeding programs are directed to either producing hybrids (as in corn and other crops) or to producing synthetic varieties by recombining selected clones or lines, as usually practiced in forage crops. Although each synthetic variety so produced may be a distinct entity in respect to certain characters, (such as disease or insect resistance, winter hardiness) the synthetic variety itself is highly variable in respect to other characteristics. The current concepts of limited generations of multiplication as a means of preserving variety identity and a constant source of breeders seed as the starting point for subsequent multiplication are the only practical methods of maintaining the genetic characteristics originally bred into such synthetic varieties.

4. General Comments.

In all crops, whether multiplied by vegetative propagation or by seed propagation, the probability does exist for variation caused by mutation. In vegetatively propagated plants these occur as "bud sports". But in an orderly process of variety maintenance as practiced by plant breeders today these mutations are of no concern because they can be recognized and discarded from the population. The frequency of occurrence of gene mutations is very low.

Very sincerely,

I. J. JOHNSON,
Research Director.

AMERICAN SEED TRADE ASSOCIATION, INC.
Washington, D.C., February 22, 1968.

MR. JOHN I. SUTHERLAND,
*Executive Secretary, National Council of Commercial Plant Breeders,
Washington, D.C.*

DEAR JOHN: We have been producing and distributing foundation seed of corn, wheat, oats and soybeans for the past 20 years. The small grain and soybeans are sold primarily within the State of Illinois, but the corn is distributed throughout the Nation, and to a number of foreign countries.

Wheat, oats, and soybeans are self pollinating crops, and to that degree, they will breed true to the variety as developed by the plant breeder. If we receive pure seed from the plant breeder, it is a relatively simple task to keep this variety true to type over a period of years. There is very little cross pollination, and therefore, very little contamination from blow-in pollen. The only possibility for impurities would come from mutations, and these are very easily rogued from the field. We have produced many varieties of these crops over a period of ten years with no problem in regard to breeding true to type.

Corn, on the other hand, is a cross pollinated crop, and trueness to type of any variety depends upon the breeding technique used in developing the hybrid. A normal double cross involving four inbred lines can be made true to type from year to year by the use of four inbred lines, which are the same from year to year. Inbred lines are self pollinated by hand pollination, and by isolation within a production field. Out-crosses are easily detected because they grow more vigorously as a result of being hybrid. We have kept hundreds of lines true to type over a period of ten or fifteen years. When these lines are incorporated into a double cross hybrid, which would carry variety designation, this variety then remains constant and true to type.

For these reasons, it is my opinion that any patented variety of these four crops, with which we are involved, would remain true to type over a long period of years.

Very truly yours,

FLOYD S. INGERSOLL,
President.

FERRY-MORSE SEED CO., INC.,
San Juan Bautista, Calif., February 23, 1968.

MR. JOHN I. SUTHERLAND,
*Executive Secretary, National Council of Commercial Plant Breeders,
Washington, D.C.*

DEAR JOHN: This letter may be filed with the Hearing Clerk concerned with the study related to the amending of the Plant Patent Act.

Seed of open pollinated plant populations may be produced by:

- (1) Self Fertilization,
- (2) Cross Fertilization,
- (3) Self and Cross Fertilization.

Seed of self pollinated species maintain their varietal characteristics. Seed of cross pollinated species is maintained by rigid roguing and should maintain varietal characteristics descriptive of the variety. Seed of self and cross pollinated species is maintained in the same manner as described for cross pollinated species.

With the highly trained technical people who are employed by the American seed industry, there is no reason why varietal identification cannot be maintained regardless of mode of seed production.

Very truly yours,

JOHN J. McCABE,
Vice President, Research.

NORTHROP, KING & Co.,
Minneapolis, Minn., February 23, 1968.

Subject: The proposed amendments to section 161, title 35, United States Code.
Mr. JOHN I. SUTHERLAND,
Executive Secretary, National Council of Commercial Plant Breeders,
Washington, D.C.

DEAR MR. SUTHERLAND: During the course of hearings in connection with the proposed amendments to Section 161, Title 35, U.S. Code, questions have arisen concerning the stability of sexually reproduced plant varieties. We wish to assert herein that stability of sexually reproduced varieties need be no problem if now well-known and understood genetic principles are employed in the development and maintenance of such varieties.

Certainly, no responsible scientist would contend that any plant variety, sexually reproduced or otherwise, is immutable. Mutation is the essence of the evolutionary process, a law of nature, and it will hold sway as long as life exists. Most things, indeed, are subject to change and this, too, seems to be a rule of life, though a far less well understood one than the process of biologic evolution.

While no plant breeder would deny that plant varieties, and especially those which are sexually reproduced, would, under certain circumstances, lose or alter their identity, those plant breeders who subscribe to the proposed amendment to the Patent Act firmly contend that this tendency toward genetic drift can be either eliminated entirely or reduced to insignificance through the application of plant breeding knowledge that is known and available to all. That there is any serious questioning of the breeder's ability to exercise this kind of control seems astonishing when evidence of this ability can be demonstrated by the present accomplishments of plant breeders and by the laws which have been formulated in recognition of this accomplishment.

The federal government, the States and individual entrepreneurs are all engaged in the breeding of sexually reproduced plant varieties. From whatever source, these varieties absolutely must have two demonstrable characters: they must be *novel* and they must be *stable*. If a new variety fails in either respect, the United States Department of Agriculture, in accordance with the provisions of the "Federal Seed Act," has the responsibility of denying the developers the right to market his creation as a new variety.

Two inescapable conclusions may be drawn from the present situation:

1. Plant breeders, both public and private, have demonstrated an ability to develop varieties which are both novel, and therefore capable of meaningful description, and stable;

2. Our government recognizes the ability of plant breeders to accomplish both ends in the provisions of its "Federal Seed Act."

Plant breeding is really very little different from animal breeding. Who would fail to recognize a Hereford, a Merino or a Hampshire, and does anyone doubt it is impossible to maintain these breeds or "varieties" in a stable, always recognizable form. In plant breeding, just as in animal breeding, a knowledge of the underlying genetics of the species, careful attention to pedigree, careful elimination of off-types, or, briefly, the skillful control of the process of reproduction will yield like progeny just as does the application of the same principles in the development and maintenance of an animal breed or "variety."

Plant scientists have gone to great lengths to discover how to maintain a valuable variety once created. The method will differ somewhat, depending on whether the variety is naturally self-pollinated, naturally cross-pollinated, often cross-pollinated or dioecious. The tendency toward stability is greater or lesser, depending on which of these categories the variety falls into, and the breeder, therefore, will select the mode of reproduction which, when properly employed, will assure the needed stability in the reproduction process.

The knowledge that any sexually reproduced variety can be reproduced true-to-type year after year if the proper method of reproduction is used, and if the method is administered with skill and diligence, is the basis upon which our International Crop Improvement Association is built. This organization working together with the U.S. Department of Agriculture and individual state agriculture experiment stations, proved that sexually reproduced varieties can be maintained in pure form when reproduction is done under proper control, and it is to this, that is to say, to *varietal purity*, that the now well-known, blue certification tag attests. It was this same group of organizations which proved (ultimately to the satisfaction of an initially doubting world) that such varieties could even be

produced outside their normal areas of adaptation without losing varietal purity if the proven safeguards were observed. This was a signal achievement, and it is now commended and accepted by plant scientists and enforcement people around the world.

That it is possible to produce readily identifiable, novel, reproducible varieties of sexually produced crops is recognized by all the leading countries of the world. It is on the basis of this awareness, for example, that the International Convention for the Protection of Plant Varieties, the so-called "Paris Convention" was developed.

To us, it seems clear there is overwhelming recognition that sexually reproduced varieties can be reproduced "true-to-type" and, in conclusion, we should like to reiterate.

1. Plant breeders, public and private alike, are nonbreeding identifiable, novel, reproducible plant varieties.

2. Our present seed laws, both state and federal, recognize the ability of the plant breeder to do this.

3. Our U.S. Department of Agriculture and agriculture experiment stations, working together with the International Crop Improvement Association, have proved that sexually reproduced varieties can be maintained in a varietally pure form and have developed the techniques for assuring this, and,

4. All the leading countries of the world recognize, in one form or the other, that it is possible to produce readily identifiable, novel and reproducible varieties of sexually-reproduced crops.

Very truly yours,

ALLENBY L. WHITE.

O. M. SCOTT & SONS, Co.,
Martysville, Ohio, February 23, 1968.

Mr. JOHN SUTHERLAND,
Executive Secretary, National Council of Commercial Plant Breeders,
Washington, D.C.

DEAR MR. SUTHERLAND: During the Senate Subcommittee hearing on Patents, Trademarks and Copyrights held on February 1, 1968, the significant question was raised as to whether sexually reproduced plants would breed true to type. This was posed during discussions on Amendment 511 to S. 1042.

Speaking as a professional plant breeder, specializing in grasses I know that it is possible to produce sexually reproduced grasses true-to-type generation after generation employing currently available technology. We do this routinely now in the production of grass seed for lawn applications. The interest of routinely producing sexually reproduced grasses true-to-type generation after generation is done by industry to maintain grass seed product quality. Secondly it is essential to maintain true-to-type plants in commercial grass varieties marketed today to satisfy both State and Federal regulatory requirements.

We feel we are in a strong position to comment on the feasibility of a broadened patent act that could cover sexually reproduced plants and particularly grasses. We currently are successfully marketing a patented Kentucky bluegrass variety and have for a four year period. It has posed no problems to us relative to maintenance of the patent.

Mr. Sutherland to summarize, we are very confident that we can produce true-to-type grasses that reproduce sexually and feel it would not be difficult to maintain such grasses sufficiently stable to satisfy patent requirements.

Very truly yours,

J. A. LONG,
Plant Geneticist, Research Division.

AGRICULTURAL ASSOCIATION, INC.,
Dekalb, Ill., February 23, 1968.

Mr. J. I. SUTHERLAND,
National Council of Commercial Plant Breeders,
Washington, D.C.

DEAR JOHN: This letter will outline reasons that sexually reproduced plants will reproduce true to type.

All of our modern plant breeding efforts are directed towards either developing hybrids or varieties. In either case, they might be cross-pollinated or self-pollinated types of reproduction.

In the case of hybrids in corn and sorghum (and possibly in the future, wheat) these are made up by pollinating material to develop inbred lines that breed true to type year after year. The whole foundation of the business demands that the hybrids remain true to type year after year and this represents no particular difficulty with ordinary seed production methods. In all three crops the inbred lines are maintained in isolation and regued very carefully before placing them in a commercial seed field where they are crossed under isolated conditions. This practice is accepted and has been going on for many years. To comply with Federal Seed Law, the hybrids cannot fluctuate from the original type that was introduced. As far as I know, there has been no particular difficulty in hybrid seed production under normal practices by reputable seedsmen.

In the case of developing varieties, the original material may come from any source, but again it must be selfed and made homozygous before it can be released and described as a variety. This is a requirement of the Federal Seed Law. Under ordinary seed production methods this has presented no particular difficulty.

The foundation of plant breeding is based squarely on Mendelian genetics and the principles show very clearly that varieties and hybrids can be made homozygous and this has been practiced for many years by all plant breeders.

The only time that variation is encountered in hybrids or varieties are in cases of 1) contamination or 2) mutation of the germplasm. Mutations are extremely rare and for all practical purposes can be considered non-significant. Contamination is harder to handle, but the established rules and regulations of state and federal agencies establish standards and tolerances for these and seedsmen have no particular difficulty meeting requirements. This means some diligence must be exercised in isolating fields and cleaning equipment that will receive the seed, but this is quite outside the genetic question of breeding true to type. Intense care is taken with the foundation germplasm to insure that this is not contaminated and popular varieties have been maintained for many years in their original fashion by university and public breeders.

Would you please file this letter with the Hearing Clerk of the Sub-committee considering amendments to the Plant Patent Act.

Best regards.

Sincerely,

R. F. HOLLAND,
Agronomic Research Director.

W. R. GRACE & Co.,
Aurora, Ill., February 23, 1968.

Re Plant Patent Act Amendments.

MR. JOHN I. SUTHERLAND,
*Executive Secretary, National Council of Commercial Plant Breeders,
Washington, D.C.*

Our opinion is that sexually reproduced plant varieties can be and are reproduced true to type, year after year. We accept as fact, the proposition that the type and varietal identity of many such varieties have been maintained over periods of many years. Furthermore, we believe that sexually reproduced varieties can be maintained true to type indefinitely under the care of skilled plant specialists. It does not matter whether the variety is of a self-pollinated species or a naturally cross pollinated species.

Johannsen, 1903, published the first evidence that homozygous lines bred true to type. Inbred lines of corn have been maintained true to type for 40 years or more and some of their true to type hybrids have been successively produced nearly as long. In fact, the hybrid corn industry is based on the principle that sexually reproducing germplasm is maintained true to type and behavior throughout repeated generations of seed multiplication.

The mechanisms of biological change such as mutation and outcrossing are sometimes mentioned as factors tending to produce differences within varieties. The skilled plant specialist is able to recognize these altered plants and remove them from the population, thereby maintaining trueness to type.

Occasional outcrosses occurring even normally self-pollinated vegetables such as tomatoes and snap beans, yet many old varieties of vegetables, including some that are cross pollinated, are maintained true to type. Therefore, it is possible after many years to have John Baer tomatoes, stringless green pod beans, or Danvers carrots true to type in spite of many generations of sexual reproduction.

Sincerely,

LEWIS M. CAMP,
Research Director.

ASGROW SEED Co.,
San Antonio, Tex., February 23, 1968.

Mr. JOHN I. SUTHERLAND,
Executive Secretary, National Council of Commercial Plant Breeders,
Washington, D.C.

DEAR JOHN: I am happy to write you providing information concerning the ability of sexually reproduced plants to reproduce true to type. I understand this information is desired for hearings in connection with the Plant Patent Act amendments, and I shall appreciate your filing my letter with the Hearing Clerk for the subcommittee record.

I believe this is a particular matter in which your question can best be answered by asking another question as follows: If sexually reproduced plants could not breed true to type, how would it have been possible for us to preserve the concept of varietal identity of sexually the produced plants as the corner stone of the seed industry and agriculture for these past many years.

The maintenance of a sexually reproduced variety in genetically pure form is the responsibility accepted by any developer of a new variety. This condition holds true whether the developing agency is public or private and it is this condition of the specific genetic identity of a variety which makes it possible for the proper functioning of the seed industry as it provides specific products to the farmer. By attaching a particular genetic identity to each variety developed it is possible to have a common basis of understanding between the seed producer or merchant and the customer whom he supplies.

Since this relation between supplier and customer, as it relates to a particular variety, can be meaningful only if the genetic identity of the variety remains constant, it becomes axiomatic that it is possible to reproduce such varieties in genetically pure form. Were this not possible, the entire system would become meaningless, and we could no longer have confidence in the use of varietal names in our industry.

Speaking on behalf of our particular firm, we spend considerable sums of money each year to maintain genetic identity of different varieties or hybrids which we are marketing. Our stated objective is to maintain each variety or hybrid in its genetically pure form, so that the customer can be confident of receiving exactly the same product from one year to another on the basis of its variety name. Where faulty reproduction does result in forms which are not genetically pure on the basis of comparison with the original variety, it becomes necessary for us to discard the seed or utilize it as merely a crop of that particular species rather than as a specific variety.

I would like to emphasize that considerable care, effort and technical knowledge is essential to maintenance of varieties in genetically pure form. We accomplish this genetic purity typically by retaining a small quantity of breeder's seed as a basic stock from which any variety is renewed from time to time. The number of generations from this breeding seed is usually quite limited, although it will vary of course depending upon the particular species involved. Stock seed increases from this, breeders seed must be grown in isolated areas under the proper environment for that particular variety or species. Constant inspection during the growing season with frequent roguing is necessary to maintain the present genetic constitution of the variety. Continuing comparisons are made of new lots to insure that the genetic type is still similar in all respects to the original variety. It is obvious that supervision of this maintenance program must be under technical personnel who are familiar with each variety and all of its characteristics.

Maintenance of genetic purity is somewhat easier in the highly self-pollinated crop such as peas, beans and tomatoes, although this maintenance of genetically pure identity can still be accomplished for the more variable species which are cross-pollinated such as carrot, onion and some of the cucurbits. True renewal from breeder's seed, followed by carefully controlled production under isolation and with adequate roguing make it possible to maintain genetically pure varieties for all species. I can actually see nothing different that would be required of the breeder in case of patenting of sexually reproduced plants than is now incumbent upon him with respect to the maintenance of varietal identity and compliance to the Federal Seed Act. That is, we are obligated to maintain the genetic purity of any particular variety once it has been named and marketed under that particular name. This we have done in the past and can certainly do in the future.

As you have noted, it is possible through directed selection by the breeder to change the genetic identity of a variety, and this is frequently done in attempts to

improve various varieties. This actually involves a breeding program, however, and is no longer a maintenance program. When improved varieties are developed through such a procedure new names will then be assigned to these new varieties and they will accordingly be marketed under the new names. Maintenance programs for these varieties in turn will be directed toward the maintenance of the genetic identity of the new varieties.

I really see no significant difference in the requirements which will be imposed upon plant breeders under the patent system than now exists for other inventors or developers. In each case, the new invention or development is described and the products marketed must conform to the original description. Whether the product be biological, chemical, physical or mechanical, it is essential for the producer to maintain adequate quality control to make sure that the product does conform to the description of the item as patented. In each case it is essential that appropriate techniques and procedures be developed to insure that the product does meet the requirements of the patent. This is possible with sexually reproduced plants just as it now is with chemical or mechanical products which are now subject to patenting.

Perhaps some of the misunderstanding about sexually reproduced plants breed true to type is occasioned by the fact that they will not automatically breed true to type. That is, it is essential that technically sound maintenance programs be carried on to insure that varieties retain their true genetic identity. I see no difference in this than the necessity for developing appropriate production techniques for a chemical or mechanical product. None of these inventions or new developments can be produced automatically, but can be produced in proper form only by appropriate techniques and procedures and under supervision of competent and skilled personnel.

I trust this provides you with necessary information on this subject but please let me know if I may be of any further assistance.

Sincerely,

JOHN S. ROGERS,
Director of Research.

W. R. GRACE & Co.,
Ames, Iowa, March 1, 1968.

Mr. JOHN I. SUTHERLAND,
*Executive Secretary, National Council of Commercial Plant Breeders,
Washington, D.C.*

DEAR MR. SUTHERLAND: A short time ago you wrote to me asking my opinion as a long-time plant geneticist, if varieties of sexually-reproduced plants breed true to type over the years. In formulating an answer to your question, I might point out that I have been working in the field of crop breeding and genetics as a researcher, breeder, and teacher for over 25 years. During this time I have actively conducted and supervised breeding programs in self pollinated crops such as soybeans, cross-pollinated crops such as alfalfa, orchardgrass, and brome grass where synthetic varieties are produced, and cross-pollinated crops such as corn, sorghum and pearl millet where F_1 hybrids are produced. This has given me experience in most of the major grouping of plants relative to breeding procedures, seed stock maintenance, and commercial seed production.

On the basis of my experience to date, I would have to say that the primary goal and efforts of plant breeders today in all types of crops are to develop improved varieties or hybrids which can be produced and reproduced by seed over a period of years on a consistent trueness-to-type basis. And, I believe this has been accomplished without any question for practically all sexually-reproduced crops on which major breeding efforts are being expended.

The whole essence of seed production programs today on new varieties and hybrids is to go back to basic breeders seed stocks on a continual basis to obtain seed for commercial production programs. The basic breeders stocks are produced through very careful selection for trueness to type and maintained by isolation and essentially obligatory self-pollination in the self-fertilized crops, and distinctive individual varieties have been, and can be kept true-to-type for many, many years. The same procedure assures production and maintenance of true breeding inbred lines of corn, sorghum, millet, etc. for many years. Since these inbreds are the parents of hybrids, the specific hybrids also can be produced on a consistent basis for many years.

In the development of new forage crops, such as alfalfa, basic stocks of seed for reproduction of new varieties are produced on the same mother plants main-

tained asexually for many years. Thus, with basic breeders stocks maintained on a trueness-to-type basis, followed by a limited generation seed increase program (breeder, foundation, and commercial), the biological and genetic basis for producing and maintaining specific varieties and hybrids of sexually-reproduced crop plants is assured. In fact, the whole scheme of varietal certification of crop varieties by the crop improvement associations in the United States is based on the accepted assumption that varieties and hybrids can be reproduced on a trueness-to-type basis and can breed true generation after generation.

The whole science of applied genetics, as applied to crop breeding, rests on the research proven results of many years that varieties can be developed by hybridization, introduction, selection, testing, etc. that will exhibit certain distinctive desirable features; and, furthermore, these varieties can be maintained through sexually-reproduction under controlled environmental conditions so that they breed true to type over many years.

I would appreciate it if you would file a copy of this letter with the Senate Subcommittee holding hearings on the Plant Patent Act amendments.

Sincerely yours,

ROBERT R. KALTON, Ph. D.,
Crop Breeding and Genetics Research Director,
W. R. Grace & Co., Ruby-Patriek Seed Division.

FULBRIGHT, CROOKER, FREEMAN, BATES & JAWORSKI,
Houston, Tex., March 1, 1968.

Re. Plant patents.

MR. JOHN I. SUTHERLAND,
Executive Vice President, American Seed Trade Association,
Washington, D.C.

DEAR JOHN: Confirming our recent telephone conversation, I understand that certain testimony was given by an agronomist during the recent Senate hearings with respect to broadening the Plant Patent Act to cover sexually, as well as asexually, reproduced plants. In particular, one issue raised concerned whether broadening the plant patent statutes would lead to problems with regard to proving infringement and enforcement of the patent which may be granted.

I foresee no particular difficulty with regard to either enforcement or infringement if the plant patent statutes are broadened to include sexually reproduced plants. It must be remembered that a plant patent is a patent on a particular plant which is completely described in the specification, forming part of the patent. In order to infringe this plant patent, it would be necessary that the plant described be reproduced, without license or authority. Thus, the basic issue would appear to be whether the plant which is accused of being the infringing plant is the same plant for which the patent was granted.

In the few instances in which plant patents have been involved in litigation, one of the major issues discussed has been access by the infringer to the patented plant. For example, in the *Rosebush* case which was tried in Tyler, Texas (*Armstrong Nurseries, Inc. v. Smith, D.C. E.D. Tex. 1958, 120 USPQ 220*) the evidence showed that there was no doubt that the infringer had utilized the patented stock when reproducing the infringing plants. Ordinarily, it would seem that such would be the case in the statutes were broadened. Access is one of the major tests of derivation in copyright actions.

However, assuming that it is impossible to show access, then the evidence relating to infringement would be a matter for experts, just as experts are invariably called in ordinary patent suits involving mechanical, electrical, or chemical methods, complex chemical compounds, and the like. For example, if a particular chemical compound is alleged to infringe, the first item of proof by the patentee is to determine identity. Here, recognized experts in the field are called by the respective parties to represent their side of the dispute with regard to this primary issue. I would envision no difference in the situation involving plant patents, and there are a great number of experts who could make appropriate laboratory and field tests of two different plants, to determine whether they are, in fact, the same plant.

It appears that there are a number of scientific tests which may be utilized to determine whether two plants are identical, or nearly so as to be indistinguishable, and these include not only such simple tests as growing the plants and observing their various characteristics, but also making a genetic or chromosome

analysis, as well as other physical and chemical tests which fall within the province of a skilled botanist.

Parenthetically, it might be noted that this very type of test is called for and routinely administered by the Department of Agriculture under the Federal Seed Act, and its regulations. In fact, one of the important facets of the Federal Seed Act is to insure that the same plant is not sold under a variety of names, thus preventing fraud on potential purchasers. It is readily seen that if these tests may be routinely administered by the Department of Agriculture, other experts may be found in private industry who would make the appropriate tests and give testimony in a private infringement action.

I further understand that the agronomist testified that variations exist between plants of a given variety. This is similarly true of many mechanical devices and chemical compounds and electrical circuits, in that there are enumerable variations in the various varieties of chemicals, when compounded with impurities, and it is, in fact, these variations that often spell out the success and importance of particular compounds. It would be anticipated under the amended plant patents statutes, just as under the present plant patent statutes, that particular variations might be patentable over existing plants because of the usefulness of this particular variation.

To summarize, there would appear to be no more problems involved in enforcement or infringement of a broadened plant patent than there are in current plant patents, or for that matter ordinary patents of invention.

If you should have any further questions, please do not hesitate to call.

Sincerely,

PAUL L. DEVERTER II.

Senator McCLELLAN. How about the Department of Agriculture, what is its position on this?

Mr. SUTHERLAND. While I cannot speak for the USDA, we have received information that the Department of Agriculture would oppose this amendment on technical grounds.

Senator McCLELLAN. I note that we have received a letter from the Chief of the Division of Legislative Reporting, Office of the Budget and Finance, from the Department of Agriculture, dated January 30, advising that this legislation is now being studied—speaking particularly of the whole bill, I presume.

Mr. BRENNAN. Primarily of the amendment.

Senator McCLELLAN. And that they will furnish us with a report of their views as soon as possible. I just wondered what their position was. The record should reflect what it is. We will get a report from them and it will be made a part of the hearing record.

Thank you very much, gentlemen.

The next witness is Dr. John Poehlman, chairman of the Department of Agronomy, University of Missouri.

Dr. Poehlman, I am advised that you have no prepared statement. You may proceed.

STATEMENT OF JOHN M. POEHLMAN, PROFESSOR OF AGRONOMY, UNIVERSITY OF MISSOURI

Mr. POEHLMAN. Mr. Chairman and members of the subcommittee, my name is John M. Poehlman. I am a professor of agronomy at the University of Missouri and a plant breeder. I teach courses in the breeding of field crop plants and conduct research in the breeding of small grains. I am appearing on behalf of the Missouri Agricultural Experiment Station and as a professional plant breeder.

Patenting sexually reproduced crop varieties involves several complex questions which do not arise with the patenting of asexually reproduced crops.

It is my purpose here to point out what some of these problems are.

The variety of a plant that is asexually reproduced represents a constant and stable group of plants that does not change over time. Every plant, barring mutants, is genetically the same.

A variety of a normally self-pollinated crop of which wheat and soybeans are examples may range from a single true breeding genetic type to a mixture of many different genetic types. The proportions of the different genetic types will change in the mixture from generation to generation. The extent of the change in any generation will vary with the environment in which the variety is grown. Our breeding practices in the past stressed the development of relatively pure varieties of self-pollinated crops with a minimal variation. Current breeding procedures lean toward the development of mixed or multiline varieties which have a wide range in variability.

These varieties are believed to have wider adaptation and better performance over a period of years.

A variety in a cross-pollinated crop, of which the forage grass or alfalfa or cotton are examples, has infinitely greater range of variability. Due to the natural cross-fertilization and the subsequent segregation, the changes that occur from generation to generation are more dynamic than in the self-pollinated crops. This is part of the process of natural adaptation.

What I am saying is a variety of a sexually reproduced crop is not an exact genetic entity which remains stable over many years. A variety is an agronomic unit. It represents a range of genetic variabilities. It is described by (1) its morphological features; (2) its agronomic performance; (3) its disease and insect resistance, and (4) its quality characteristics.

In multiline or in cross-pollinated crops, the genetic composition will change from year to year, so that a variety a few years hence may not fit the description under which it was patented. This is particularly true in crops like alfalfa where the seed is produced in an area different from the area of adaptation.

Who then is to describe the limits of variability of a particular variety of a sexually reproduced crop to which a patent applies?

Who verifies that the variety meets the description under which it is being patented?

Verification may require growing under different environments, subjecting the variety to various physiologic races of the different disease organisms, and measuring different quality components. These are expensive and time-consuming procedures.

Will the process of verifying the description delay the release of new varieties?

Will the description fit if the variety is grown in a new environment in which the variety reacts differently?

Will breeders freely exchange breeding materials as in the past if their genetic lines are subject to patenting?

Mr. Ingersoll spoke of high lysine corn. Would this have had the wide distribution throughout the world, being used as widely as it is today in upgrading the nutritive quality of corn in the underdeveloped countries, if it had been patented?

Will upgrading of a variety in production by substitution of new lines in a multiline or synthetic, or by reselection as is practiced in line breeding in cotton, be practiced as readily if this practice requires verifying the changes and obtaining a new patent for the upgrading variety?

These are questions that should be studied carefully and answered before patenting varieties of sexually propagated crops.

It is my judgment, and I think it is that of many plant breeders, that concise descriptions cannot be given for most varieties; that the range of variability within many varieties changes from generation to generation; that verification to establish identity will be a time-consuming and expensive procedure; that the release of new varieties will be slowed down; and that there will be a suppression of the free exchange of breeding materials between plant breeders as now practiced, of which high lysine corn is an example.

Thank you.

Senator McCLELLAN. You say that you are a professor and a teacher of agronomy in the University of Missouri and a plant breeder. Do you have any private enterprise?

Mr. POEHLMAN. No, sir. I am in charge of the breeding of wheat, oats, and barley seeds.

Senator McCLELLAN. You are not in business, except as a salaried employee?

Mr. POEHLMAN. Of the University of Missouri, that is correct.

Senator McCLELLAN. It appears that a great majority of those who are actually in the business—in the competitive field—desire this protection and think that it will be helpful and that it can be administered and enforced. As I understand it, you disagree with them?

Mr. POEHLMAN. I have tried to raise some questions which I think need to have careful consideration regarding the difficulty that would be involved in trying to administer and enforce this law.

Senator McCLELLAN. You have raised some very good questions. I am not arguing that. What I am concerned about and wonder is, if they have given study and consideration to these hypothetical questions, which may be very material questions that you have raised, and concluded, notwithstanding the questions, that the amendment can be administered and enforced.

Let me ask you another question: Is there a considerable investment of time and expense in developing these new seeds and new products and new plants?

Mr. POEHLMAN. Yes, there has been.

Senator McCLELLAN. You represent a school, a financed institution, and you are not spending your own money that you have earned in what you are doing. But these people who are out in business and the world of competition are spending their own money. They make the contention, as you have heard, that there is a lot of time and effort and expense involved in the development of these new seeds and new species, and that the fellow who spends the money, once he gets his product and puts it on the market as a seed, loses all of the control, and the seed is reproduced by others and he gets nothing from it. He may have improved the seed; but he has sustained a loss from which others benefited. What do you say to that?

Mr. POEHLMAN. Certainly, the private breeder certainly does expend a lot of time in developing varieties, such as the high-lysine corn which has been mentioned. They have built-in protection in varieties of some crops like corn hybrids but not in the soybeans that Mr. Neeley mentioned. But I raise the question of how they might enforce such an act. Would they prevent a farmer selling these soybeans to his fellow farmer for seed? Would it lead to his neighbor buying them for feed and then planting them?

Senator McCLELLAN. I raised the same question a while ago. To me there seems to be a great injustice for the man who goes out and spends his time and his efforts and his money to develop it, and then he cannot get the benefit of that sufficiently even to cover his costs. It seems to me like it is very unfair, as the proponents have pointed out, and unless some protection is given it will soon die out. Not many people are going to continue very long to lose money that others might profit, in this free-enterprise system of ours. That is the thing that gives me a little concern, that is, the enforcement of it. I think there is a lot of equity on the side of the proponents of this amendment. I do not know how well it can be enforced. There may be some other results that would not be satisfactory, as you say, about a neighbor selling seeds to his neighbor as feed and the neighbor deciding that instead of feeding them he will plant them.

Mr. POEHLMAN. Yes, sir: One of the problems I attempted to bring out was this case about alfalfa. It has been well demonstrated that a synthetic variety of alfalfa that was developed in Nebraska which was taken to California and the seed grown in California, when the seed is brought back is is not necessarily the same seed as it was when it went out because of the genetic changes that occurred.

Senator McCLELLAN. We may have problems of enforcement, as I said. As I see the issue right now, there is a great deal to be said on the sides of those who are trying to improve the plant or the crop and perhaps spend a lot of money to do it, and then cannot even recover the cost. I do not know whether there is any way to reach it or not, but if there is a proper way to reach it, I think that they should have protection.

Thank you very much.

Do you have any questions, Senator Fong?

Senator FONG. I have no questions. I am sorry that I was not here to listen to your statement, but I will read it later.

Senator McCLELLAN. Our next witness is Mr. Macdougall.

Come around, Mr. Macdougall.

Identify yourself for the record.

I see that you have a very brief statement. You have my permission to read it, if that will expedite your testimony.

STATEMENT OF IVER C. MACDOUGALL, DIRECTOR, LAW DEPARTMENT, STAUFFER CHEMICAL CO.

Mr. MACDOUGALL. Mr. Chairman and members of the subcommittee, my name is Iver C. Macdougall. I am director of the law department of Stauffer Chemical Co., a major producer of insecticides, fungicides, weedkillers and other chemicals for agriculture.

My purpose here today is to call your attention to an important practical problem which faces pesticide manufactures under present

patent law and to urge that this problem be remedied by the inclusion of appropriate new provisions in such legislation as the subcommittee may recommend.

The sale, distribution and use of pesticide chemicals in interstate commerce is regulated by the U.S. Department of Agriculture and by the Food and Drug Administration acting under authority of the Federal Insecticide, Fungicide and Rodenticide Act, commonly known as FIFRA, and under certain related statutes. A product cannot be sold for pesticide use without first complying with the requirements imposed by FIFRA and by regulations issued thereunder. Among other things, it is necessary to demonstrate that the product will be effective for the claimed purposes when used as directed, will not cause unintended injury to useful plants or animals, will not leave toxic residues on farm produce when used as directed, and, in the case of chemicals for use on food or forage crops, that the product and its degradation products are not carcinogens. Compliance with these desirable regulatory standards takes time and costs money. Lots of time and lots of money. Based on present regulatory requirements, we estimate that the development of a new pesticide, from concept to final regulatory clearance, will take an average of 7 years and cost an average of \$5 million. Sometimes a much longer test period is required. We have one product on which the patent will expire in 5 years and which is still not approved for commercial sale.

The development of safe and more sophisticated pesticides is an essential and proper response to increased public concern over environmental health and ecological stability. It is therefore important to encourage pesticide producers to maintain and increase their efforts to develop such new products. Efforts and risks of this magnitude will not be undertaken unless the producer can look forward to a substantial period of patent protection after he is in a position to market his product. Under present patent law, the substantial time spent in meeting FDA and USDA requirements is time irretrievably lost so far as patent protection is concerned. Once the patent issues, the clock begins to tick, and delays caused by the compliance procedure operate to reduce the effective period of patent protection. As standards become more stringent and products become more sophisticated, these delays will become longer and the period for protected commercialization will become shorter. Thus, under present law, a pesticide manufacturer is deprived of his full measure of patent protection and incentive in precisely those situations where the law ought to maximize his incentive to develop new and safer products.

We, therefore believe that the revised patent law should include a provision to the effect that when the only substantial commercial uses of a patented product are uses regulated by Federal law, and when commercialization of the product is prohibited until the regulatory requirements are met, the term of the patent should be extended by a period of time equal to the time lost in complying with such requirements. A provision of this nature would not create new patent rights; it would simply preserve the full measure of patent rights which would be available to a producer in the absence of other Federal regulation. Certainly this is a fair and equitable objective.

We are now working on draft provisions which will express this concept in specific legislative terms, and we hope to find a congress-

sional sponsor or sponsors for the proposal. Obviously, the measure must include suitable safeguards against misuse, but we are confident that a practical bill can be developed.

We believe that this concept is socially desirable in order to encourage the continuing development of safer and more sophisticated pesticides, and we urge that it be embodied in the projected revision of our patent laws.

Senator McCLELLAN. You are in the process of preparing an amendment that you would like to have considered?

Mr. MACDOUGALL. Yes, sir. I am not here today to take a position on any of the proposals before the subcommittee.

Senator McCLELLAN. I suggest then that you prepare the amendment that you think would serve the purposes that you have in mind and submit it with a letter of explanation and any further reasons why you think it should be adopted.

I shall direct your amendment and your letter be printed in the record immediately following your testimony here, so that we will have the benefit of it later. I do not know, but someone might raise the question of special pleading, that you get an extension of a patent that is not granted to other inventors and discoverers. That would be the initial objection to your request, of course, and you had better give some answer to that. Probably, you have already given some thought to that. I think that would be the initial objection of various people, before the committee could get a favorable consideration to your request, that would have to be considered. I am not discounting the merits of it, but if you have got a case, make it.

Mr. MACDOUGALL. There is a precedent for this type of thing in the provisions of the Atomic Energy Act which provide for the postponement of the patent application.

Senator McCLELLAN. Thank you very much, Mr. Macdougall.

Senator FONG?

Senator FONG. Mr. Macdougall, may I ask you one question?

You say that you have a product now on which the patent will expire in 5 years?

Mr. MACDOUGALL. Yes, sir.

Senator FONG. But that you have not been able to commercialize it?

Mr. MACDOUGALL. No, sir.

Senator FONG. You have not been able to sell any of it?

Mr. MACDOUGALL. No, sir; we have not yet received the full and complete approval of the regulatory body. I hasten to say that it is not their fault. They are doing their job of protecting the public, as they should. The result is to reduce our ability to profit from our investment.

Senator FONG. Five years from now, what will be the state of your patent then?

Mr. MACDOUGALL. We would have nothing. Everyone else could come in and manufacture the same product and take full knowledge of all of the research time and effort we have put into it. We would have no protection commercially speaking. We would never realize any commercial benefit from the product.

Senator FONG. This is the problem that you are talking about here [indicating statement]?

Mr. MACDOUGALL. Yes, sir.
 Senator FONG. Thank you.
 Senator McCLELLAN. Thank you very much.
 (The proposals referred to follows:)

TEXT, SUMMARY, AND EXPLANATION OF PROPOSED BILL AUTHORIZING OPTIONAL
 EXTENSION OF TERM OF PATENTS RELATING TO CERTAIN REGULATED PRODUCTS

(SUBMITTED BY STAUFFER CHEMICAL CO., NEW YORK, N.Y., IVER C. MACDOUGALL,
 DIRECTOR, LAW DEPARTMENT, FEBRUARY 23, 1968)

PURPOSE AND PREMISE

In a statement given before the Subcommittee on Patents, Trade-Marks and Copyrights of the Committee on the Judiciary on February 1, 1968, we pointed out that owners of patents covering products whose only substantial commercial use is in a field of commerce regulated by Federal law are effectively deprived of the full benefit of their patent whenever the regulatory law compels postponement of commercialization beyond the issue date of the patent. This inequity operates to reduce the patent incentive in precisely those areas of commerce where the public interest demands that the incentive be fully maintained.

We therefore suggested that the patent laws should include a provision to the effect that when the only substantial commercial uses of a patented product are uses regulated by federal law, and when commercialization of the product is prohibited until the regulatory requirements are met, the term of the patent should be extended by a period of time equal to the time lost in complying with such requirements.

Although simple to state, this principle does present serious (though not necessarily insurmountable) problems in drafting remedial legislation. What is a "substantial" commercial use? Who is to decide whether a product has a substantial use in an unregulated field? How and in what forum are said questions to be answered? To what extent may third parties challenge such findings, and when?

To avoid these difficult subjective questions and at the same time remedy the underlying inequity without improper enlargement of patent rights, an alternative approach seems feasible and has been reflected in the attached draft bill. This approach is based on the premise that if a patent owner believes that his patent is of little or no value to him in fields outside the regulated field, he may be willing to surrender his patent rights in such fields in exchange for an extension of the patent term in the regulated field to compensate for time lost in the regulatory process. This would not only remedy the inequity and maintain the full patent incentive, but would have the added social advantage of opening the patent to free exploitation by third parties in other fields far earlier than would otherwise be possible.

SCOPE OF APPLICATION

This bill would apply only with respect to patents having a claim or claims reading upon a composition of matter having possible value in a field of commerce regulated by an agency of the Federal Government, or upon the use of a product in such a field, or upon the use of a product as an intermediate in the manufacture of a product for use in such a field, [Paragraph 1(d)]. Furthermore, the bill would apply only if the prior approval of such an agency is an essential precondition to the lawful commercial manufacture, sale and/or use of such a product in the regulated field, [Paragraph 1(a)].

OPTIONAL LIMITED EXTENSION OF PATENT TERM

This bill would allow a patent owner (or his agent or licensee) to apply once and once *only*, for extension of the patent term of a covered patent for a limited period equal to the time actually required, *after* issuance of the patent, to obtain the necessary regulatory permission for general commercial sale of at least one product covered by the patent, [Paragraph 2]. The maximum extension for any one patent would be five years, [Paragraphs 1(j) (3) and 4(a)].

WAIVER OF PATENT RIGHTS IN OTHER FIELDS

In applying for such an extension, the applicant would expressly and irrevocably renounce all right to enforcement of the patent in respect of any activity other than the manufacture, use and/or sale of products in the regulated field or intermediates for the manufacture of such products. [Paragraph 4(b)]. Thus the patented inventions would be opened to free use by third parties in all other fields of commerce in exchange for a limited extension of the patent term in the regulated field. This provision operates as a safeguard against deliberate retardation or suppression of research into uses for the invention outside the regulated field.

EXISTING RIGHTS PRESERVED BUT NOT ENLARGED

Since the period of extension cannot exceed the time actually required to obtain clearance on at least one regulated product covered by the patent, the bill does not operate to extend the commercially useful patent term beyond the term enjoyed by other patentees. It merely retsores, up to a maximum of five years, the time lost to the patent owner by operation of the regulatory process in the specified field.

SAFEGUARDS AGAINST MISUSE

The bill requires that the election be made within the first five years of the patent term. [Paragraph 3(d)]. This gives the patent owner a reasonable time within which to decide whether or not to apply for an extension and thereby forego his patent rights in fields other than the regulated field. On the other hand, it prevents unreasonable delay in the exercise of this privilege.

The bill also includes provisions designed to encourage diligent pursuit of regulatory approval of at least one patented product after the election has been made. [Paragraph 5]. A patent owner who fails to exercise due diligence risks loss of all of his rights under the patent through application of the established doctrine of misuse.

PROCEDURAL PROVISIONS

Finally, the bill establishes the mandatory steps which must be taken in order to establish the election and procedures for the necessary notices to and from the Patent Office and the regulatory agency, as well as notice to the public. [Paragraph 3]. It is contemplated that these procedures would be supplemented by detailed administrative regulations not inconsistent with the provisions of the bill.

TEXT OF PROPOSED BILL

OPTIONAL EXTENSION OF TERM OF PATENTS RELATING TO CERTAIN REGULATED PRODUCTS

1. Definitions

As used herein:

(a) "*Regulated Product*" shall mean any composition of matter or formulation thereof, the manufacture, use and/or sale of which for a particular purpose or field of use is subject to control by any agency of the Federal government and which, under the statutes and/or regulations authorizing and establishing such control, may not be shipped in interstate commerce except in experimental quantities without prior approval by such agency.

(b) "*Relevant Agency*" shall be the agency of the Federal government charged with control and regulation of a Regulated Product with respect to a use for which it is a Regulated Product.

(c) "*Regulated Field*" shall mean a purpose or field of use as to which the approval of a Relevant Agency is required prior to shipment of a Regulated Product in interstate commerce for such purpose or in such field of use.

(d) "*Subject Patent*" shall mean any issued and unexpired United States patent which has a claim or claims covering a novel composition of matter which may be useful as a Regulated Product (whether or not such use is mentioned in the patent) or as an intermediate for the manufacture of a Regulated Product (but only if such use is mentioned in the patent), or which has a claim or claims covering the use of a composition of matter as a Regulated Product.

(e) "*Patented Product*" as used with respect to a particular Subject Patent, shall mean any Regulated Product whose composition of matter or use as a Regulated Product is comprehended by a claim or claims of such Subject Patent.

(f) "*Application for Clearance*" shall mean the first step in making application to the Relevant Agency for permission to ship a Regulated Product in interstate commerce. Each Relevant Agency shall establish and define such step by appropriate regulation.

(g) "*Applicant*" shall mean the person who files an Application for Clearance, provided such person, on the date of such filing or on the later date of issuance of the relevant Subject Patent, is either the registered owner of such Subject Patent or the duly authorized agent or duly authorized licensee of such owner.

(h) "*Notice of Application*" shall mean the notice by the Applicant to the Patent Office provided in subsection 3(a) below.

(i) "*Notice of Disposition*" shall mean the notice from the Relevant Agency to the Patent Office as provided in subsection (j) below.

(j) "*Compliance Period*", with respect to a particular Subject Patent, shall mean the period of time beginning on the date of filing of the first Notice of Application with respect to a Patented Product and ending on the first to occur of the following dates:

(1) the first date of receipt by the Patent Office of a Notice of Disposition from the Relevant Agency which confirms that such Patented Product or any other Patented Product covered by such Subject Patent has been duly approved for commercial shipment and use as a Regulated Product;

(2) the date of receipt by the Patent Office of a Notice of Disposition from the Relevant Agency which confirms that all Applications for Clearance with respect to Patented Products covered by such Subject Patent have been formally withdrawn and have not been refiled within 30 days after such withdrawal;

(3) the 5th anniversary of the date of filing of such Notice of Application.

The Relevant Agency shall be responsible for the prompt transmission of Notices of Disposition to the Patent Office as provided above. On receipt of such notice, the Patent Office shall cause the date and fact of receipt to be recorded in the file wrapper of the Subject Patent and published in the Official Gazette. The Notice of Disposition shall become a part of the file of the Subject Patent to which it relates.

2. Election to extend term of subject patent

The registered owner of a Subject Patent or his duly authorized agent or licensee may elect to apply for an extension of the term of such patent in accordance with the procedures and subject to the conditions herein set forth. Such election may be made once and only once with respect to a particular Subject Patent or reissue thereof, and in only one Regulated Field, and shall be irrevocable and binding upon the Applicant and all parties then or thereafter having any interest in such patent.

3. Procedure for election and notice of election

An Applicant who desires to apply for extension of the term of a Subject Patent shall proceed as follows:

(a) The Applicant shall file with the Patent Office a Notice of Application, supported by affidavit and in such form as the Patent Office may require, setting forth:

(1) the number and date of issuance of the Subject Patent;

(2) the name and address of the Applicant and, if Applicant is not the registered owner, proof of his authority in the premises;

(3) the name of the Relevant Agency with which the Application for Clearance has been filed and the Relevant Field in which the election is being exercised.

(4) a description, including chemical name if known, of each Patented Product or Products to which such Application for Clearance relates; provided, that in the case of a Patented Product which is or may be useful in varying formulations or dilutions, it shall not be necessary to describe each or every such formulation or dilution.

(b) Such Notice of Application shall be filed with the Patent Office within 10 days after the first to occur of the following dates:

(1) the date of filing of the first Application for Clearance with respect to a Patented Product covered by a claim or claims of the Subject Patent;

(2) the fifth anniversary of the date of original issuance of the Subject Patent;

(3) the date of original issuance of the Subject Patent, provided such date is subsequent to the date of filing of the first Application for Clearance with respect to a Patented Product covered by the claims of such patent.

No Notice of application shall be timely or effective for any purpose unless filed within the applicable period specified herein.

(c) Within the same 10 day period the Applicant shall file with the Relevant Agency a true and complete copy of such Notice of Application.

(d) On receipt of such Notice of Application, the Patent Office shall promptly cause the date and fact of receipt to be recorded in the file wrapper of the Subject Patent and published in the Official Gazette. Such publication shall operate as notice to all persons that the term of the Subject Patent will be extended as herein provided and that the Applicant has irrevocably consented to the conditions of extension set forth in Section 4 hereof. The Notice of Application shall become a part of the file of the Subject Patent to which it relates.

4. *Effect of election*

Upon timely filing of an effective Notice of Application as herein provided:

(a) the term of the Subject Patent to which such Notice relates shall be extended beyond the term specified in Section 154 of Chapter 14 of Title 35, United States Code by a period of time equal to the Compliance Period, but only insofar as such patent may relate to the manufacture, use and/or sale of Patented Products in the Regulated Field specified in the Notice of Application; and

(b) The Applicant, by his election hereunder and for himself, his successors and assigns, waives and surrenders any and all rights as against any person to assert any claim or claims of such Subject Patent in respect of any activity other than the manufacture, use and/or shipment of Patented Products in such Regulated Field. Such waiver shall not be affected by the action taken by the Relevant Agency in respect of the Application for Clearance.

5. *Misuse of compliance period*

(a) An Applicant shall be under an affirmative duty diligently to pursue each and every Application for Registration as to which a Notice of Application has been filed hereunder until at least one Patented Product has been duly approved for commercial manufacture, use and/or sale in the Regulated Field or until all such Applications for Registration have been discontinued by written notice to the Relevant Agency.

(b) If the Relevant Agency has reason to believe that an Applicant is not fulfilling such duty, it may deliver to such Applicant a notice to this effect, whereupon the Applicant shall be required to submit appropriate proof that he has in fact exercised due diligence as herein required. If such agency determines that such proof is inadequate, it shall issue formal findings to such effect and shall thereupon notify the Patent Office of such findings.

(c) Receipt of such findings by the Patent Office shall forthwith be entered in the file wrapper of such Subject Patent and published in the Official Gazette, and shall constitute presumptive evidence of the misuse of such patent unless and until such findings are reversed by a Court of competent jurisdiction.

(d) Proceedings by the Relevant Agency pursuant to Section 5(b) shall be conducted under such rules and regulations as such agency shall deem appropriate and in compliance with the Administrative Procedure Act. Findings adverse to an Applicant shall be subject to appeal as provided in said Act.

Senator McCLELLAN. Who is the next witness?

Mr. BRENNAN. Mr. Bean is the next witness.

Senator McCLELLAN. Mr. Bean, please identify yourself, for the record and then indicate who your associate is.

**STATEMENT OF ERNEST K. BEAN, DIRECTOR AND PAST PRESIDENT,
THE CLEVELAND PATENT LAW ASSOCIATION, ACCOMPANIED BY
JOHN F. PEARNE, PRESIDENT, THE CLEVELAND PATENT LAW
ASSOCIATION**

Mr. BEAN. Mr. Chairman and members of the subcommittee, my name is Ernest K. Bean. I am general patent counsel for the B. F. Goodrich Co. of Akron, Ohio; and I appear here for the Cleveland Patent Law Association of which I am the immediate past president, and with me is Mr. John F. Pearne, a patent lawyer in Cleveland. He is the current president of the Cleveland Patent Law Association.

Senator McCLELLAN. Very well, I see that you have quite a lengthy statement.

Mr. BEAN. Yes, sir; we do.

Senator McCLELLAN. Is there any prospect of having it printed in the record and letting you highlight it?

Mr. BEAN. I would request that it be printed in the record in full, together with the appendix and supplements.

I will not read the prepared statement. I will make a few comments, highlighting the statement.

Senator McCLELLAN. The statement will be received and printed in the record.

Mr. BEAN. The Cleveland Patent Law Association is an organization of about 250 lawyers of northeastern Ohio. About one-half of us are engaged in corporate patent practice; the other one-half in private practice. Our clients range all the way from individual inventors to medium-sized corporations, large corporations, worldwide corporations.

We have thoroughly studied the patent system since the President's Commission made its report a year ago.

We have studied in cooperation with other members of the National Council of Patent Law Associations, and we have submitted our views to the patent bar, generally.

My remarks today will be brief and in two parts.

The first part consists of some general comments on the pending legislation. These remarks are made in the light of the happenings in the last 2 weeks.

The other part of my remarks will present a specific proposal or amendment which we believe has not been presented by anyone else here at these hearings.

In the first part of my remarks I would emphasize that the Cleveland Patent Law Association endorses in principle S. 2597, the Dirksen bill. We have studied all of the bills and we are in favor of this one. We are in favor of it, primarily, for three reasons:

First, it preserves the essential parts of the American patent system, the system of rewarding the first and diligent inventor in return for a full and complete disclosure of his invention to the public.

We are, secondly, in favor of the Dirksen bill, because, in our view, it strengthens the incentives at a time when strengthening is needed. There are figures which indicate that the number of patents issued to Americans in proportion to population have declined considerably in the last 35 years.

Senator McCLELLAN. Would that be true in view of the many innovations in technology? Why would that be true?

Mr. BEAN. I think many innovations in technology—many improvements—are not being processed through the patent system. I do not say that we have not made many technological advances, but I think that there are many things that are of doubtful patentability which are not being made the subject of patent applications.

Senator McCLELLAN. How do they get protection, then?

Mr. BEAN. I beg your pardon?

Senator McCLELLAN. How does the inventor get protection, then?

Mr. BEAN. He has protection only in two areas. First, he can rely on whatever benefits there are in the law of trade secrets.

Second, the headstart—that his improvement in and of itself gives—is sufficient to adopt it without the incentive of the long-term grant of a patent.

Senator McCLELLAN. Technology is moving so fast that he feels he can recoup?

Mr. BEAN. Yes, sir.

Senator McCLELLAN. The advantages are simply speeding up the marketing of it?

Mr. BEAN. Yes, sir, and having his temporary headstart, as we call it.

Senator McCLELLAN. All right. I was interested in that.

That is an interesting thought.

Mr. BEAN. We think that S. 2597 strengthens the incentives in three ways. Section 263, which is recommendation XXII of the President's Commission, entitled "Transferable Nature of Patent Rights," involves a codification of "misuse of patents" under the law, but prevents any further developments of the law so as to make certain practices now considered proper, per se, violations.

Secondly, S. 2597, in section 100(g) contains a definition of what is useful to be entitled to a patent. We think that this is particularly appropriate at this time and a needed incentive-oriented provision.

Third, S. 2597 has a provision whereby a process patent can be used to prevent importation of a product made abroad by the patented process.

The third reason we favor S. 2597 is because, in our view, it is the most balanced approach to fulfilling the other purposes for which revision is desired. In our words, we would state these purposes as making the system work more promptly, not more expensively, and more certainly.

Promptness is brought about by promptness on the part of both the applicant and the Patent Office. The provision for a patent term extending 20 years from its filing date is a strong incentive for the applicant to be prompt.

In the Patent Office administrative changes have speeded up the processing and examination of patent applications. We, therefore, think that promptness, except for the interference problem, is pretty well under control if S. 2597 were enacted.

We believe that both the administration and the bar have now agreed to preserve the incentives of the U.S. system; however, there is still some disagreement as to how to go about achieving promptness in disclosure to the public, particularly in cases where rival claimants are vying for a patent on the same invention. There have been various

proposals for solving the delay due to interference procedures. There has been the proposal of the Houston Association and the proposal embodied in S. 2597. We, in Cleveland, also had a proposal which would grant the patent as soon as possible to the first to apply and then permit the first inventor to contest the patent through a simplified proceeding in the Patent Office and, later on if he desired, in court.

Events of the past few days have brought forth what is called by some a "modified first-to-file" system and by others a "modified first-to-invent" system. We, the Cleveland Association, take no position at this time on this proposal, because we have not seen it in statutory form, and we have not been able to study it. However, I would like to raise the question of whether this proposal would destroy the defense of prior invention. If it would destroy the defense of prior invention, we believe that it would have an adverse effect on promptness, in that many possible inventions on which applications are not now being filed will have to be filed.

The statements made in connection with the "modified first-to-file" system say that it is necessary in order to get people to enter the patent system. We hold that it is also important that an innovator or improver not be required to enter the patent system.

There has been an estimate that some 50,000 possible patent applications per year are not being filed for one reason or other. If all of these were filed the work of the Patent Office would increase immensely and this would defeat the desirable promptness in the functioning of the patent system.

We favor all proposals in S. 2597 which would simplify the patent system and thereby make it no more expensive.

We believe that the matter of the Patent Office fees should be kept in the hands of the Congress rather than delegated to the Commission.

We favor simplification in filing procedures.

We also favor provisions which truly make a patent grant more certain, or, as it is said by some, make patents of better "quality and reliability."

In this connection, it seems that many of these proposals are brought forward on the idea that if the Patent Office could grant only those patents which are sure to be sustained by the courts, then the quality would be increased, and the much discussed difference in "standards of invention" between the Patent Office and the courts would be eliminated.

We think that this overlooks the application of one of the tests of patentability. One of the tests under our law is the absence of "obviousness," and the question of "obviousness" is one on which reasonable minds can reach different conclusions. We think it is the function of the courts to decide borderline cases. If the Patent Office granted only those patents where reasonable minds would not reach different conclusions as to the issue of "obviousness," it would mean, in our view, that the Patent Office would, in fact, be applying a different and higher standard than the standard being applied by the courts.

In the two recent cases in which two patents were held invalid by the Supreme Court, if you count up the number of judges through the process of litigation who passed on these two patents, the score was 11 who thought they were invalid and nine who thought they were valid. If you add the two examiners who granted the patents it becomes 11

to 11. We, therefore, do not feel that there is any necessity for a change in the law with regard to the "presumption of correctness" of the Patent Office or with respect to the applicant having the "burden of persuasion."

We support S. 2597 because it does not contain these provisions.

We do, however, feel that there is a way—a very simple, easy way, to improve the certainty of patents, so that the public will not be misled into thinking a patent is stronger or weaker than it really is, and so that the patentee will not be misled to think that his patent is stronger or weaker than it is.

Our proposal is simple. We propose that the file of a patent be kept open throughout the term of the patent for the citation by any member of the public of patents and publications which may bear on the patent's validity.

S. 2597, in sections 136 (a), (b), and (c) provides for citation of patents and publications after allowance, which is followed by publication, and then there is a 3- to 6-month period in which any member of the public can cite to the Patent Office any patents and publications which may affect the patentability, and the Office can then take a further look, reexamine, and either grant the patent or refuse to grant the patent on the ground that there is some new information brought forward by a member of the public. We support this provision. We think it is a good thing. However, we think it does not go far enough. We do not believe that the whole matter should end at the time of the grant. We think that in many cases people are not interested in doing an independent search in this 3- to 6-month period. Later on, when they become more interested in the invention, they will undertake a search. We think that mistakes will always be made in searching.

There may be pertinent patents and publications which exist which are not found, and if they are not found until after the grant of the patent, we think that any member of the public should be able to call the patent or publication to the attention of the public by citing it to the file of the patent.

Our proposal is somewhat analogous to the citation of liens against Torren's certificates of real estate. We would keep the file of the patent open at all times so that pertinent patent and publications could be made of record.

The appendix to our statement contains a detailed statutory provision as to exactly how it would be done. It would be voluntary, analogous to section 136(f), I believe of S. 2597. However, we would also amend section 285 of S. 2597 which deals with attorney fees to actually encourage the citation of patents and publications for the record, and to encourage the patentee, when they are cited, to take advantage of the reissue and disclaimer statutes to correct his patent, by reissuing it or by disclaiming certain claims.

This incentive to reissue or disclaim and strengthen his patent and the incentive to come forward with pertinent patents and publications is brought about by changing section 285 dealing with attorney fees, to say that a party to a civil action, when a patent gets to court, who prevails in an assertion of invalidity because of patents or publications cited on the record of the patent before the commencement of the action may be entitled to an award of reasonable attorney fees in the absence of timely restriction; that is, by reissue or disclaimer on the part of the patentee.

We think that our proposal works to the benefit of the public; we think it works to the benefit of the Patent Office. No more workload is put upon the Patent Office. It serves as a sort of a quality check to the examination they have been making. It may help them in classification, and so forth. It is beneficial to the patentee, in that it enables him to strength in his patent, if there is something pertinent in the prior patents and publications which he does not know about. We think that it is a simple proposal, one that does not add expense or add complicated procedures, and which will make things move more promptly and more certainly, and without increasing expenses. We recommend it to the attention of the subcommittee in dealing with the revision of the patent law.

Mr. Chairman, that is about all I have to say. Thank you.

Maybe Mr. Pearne would like to add a word.

Senator McCLELLAN. Thank you very much.

Mr. Pearne, we will now hear from you.

STATEMENT OF JOHN F. PEARNE, PRESIDENT, THE CLEVELAND PATENT LAW ASSOCIATION

Mr. PEARNE. I think that Mr. Bean has adequately covered the matters upon which we feel authorized to speak on behalf of the Cleveland Patent Law Association which we represent here today. However, if I may make a suggestion for consideration by the subcommittee, with the understanding that it is not one that our association has yet considered, I would like to do so.

Senator McCLELLAN. You may submit a personal comment and recommendation.

Mr. PEARNE. This is prompted by recent developments in which the Patent Office and others in the administration have indicated a desire to back away from the strict "first-to-file" process in determining the right to a patent, and are suggesting that the patent should be awarded to the first inventor, but that a junior or second applicant should be limited arbitrarily in some manner by placing a time limitation on how far back of his filing date he may go in proving his prior invention.

It seems to me that any such arbitrary limitation, after once recognizing the importance of awarding a patent to the first inventor, tends to proceed by legislation to make it impossible in cases which may be of the greatest importance for the patent to be awarded to the first inventor. It makes it possible for one who has made little contribution to making a truly useful end product available to the public, to hurry into the Patent Office with a patent application and to win the right to a patent over the man who has diligently sought to carry the incentive idea forward through the form of practicality in industry. I would, therefore, like to suggest that it may be of the greatest importance, in view of these recent time limitations, to give serious consideration to requiring diligence in making the invention available to the public in useful form as a requirement for carrying a date of invention back in time, but to permit this to be done without limitation where there has been such diligence. And it might be useful in that connection to provide that a lack of diligence for a period of, say, 1 year in attempting to perfect the invention for actual use by the public

should be prima facie abandonment of the right to it, recognizing, as I believe we all do, that one should also have the right, after making an invention, to continue using it without applying for the benefits of patent.

It should also be recognized, of course, that one who is not seeking a patent should not be limited in any manner in proving his prior invention for the purposes of securing his continuous right to use that which he first invented.

I thank you very much.

Senator McCLELLAN. Thank you, gentlemen.

(The prepared statement submitted on behalf of the Cleveland Patent Law Association follows:)

STATEMENT BY ERNEST K. BEAN, ON BEHALF OF THE CLEVELAND PATENT LAW ASSOCIATION, RELATING TO PATENT LAW REVISION

Mr. Chairman and members of the Subcommittee, by name is Ernest K. Bean. I am General Patent Counsel for The B. F. Goodrich Company of Akron, Ohio. I appear before this Subcommittee today on behalf of The Cleveland Patent Law Association as its immediate Past-President in accordance with a request dated August 2, 1967 to the Chairman from our current President, Mr. John F. Pearne. We are sincerely grateful that the Committee has scheduled us to be heard.

The Cleveland Patent Law Association includes about 250 lawyers of Northeastern Ohio, about half of whom are engaged in private practice specializing in the law of patents and the other half employed as house Patent Counsel for major corporations in that area.

In the first half of 1967 our Association thoroughly studied the Report of the President's Commission on the Patent System and the proposed legislation (S. 1042 and HR 5924) which had then been introduced in Congress. We embodied our views in a document which was widely distributed and well-received by the Patent Bar and other persons interested in the Patent System. This document and a supporting "Appendix" accompanied our August 2 letter to the Subcommittee Chairman, and we hereby renew our request that the document, without the "Appendix", be included in the record of these Hearings. For the convenience of the Subcommittee, a copy of this document is attached as a "Supplement" to each of the copies of this Statement.

My present comments are in the light of more recent developments and are divided into two parts. Part 1 is an overall summary of the views of the Cleveland Association reflecting study of S. 2597, the Bill introduced by Senator Dirksen and generally supported by the American Bar Association. Part 2 presents a specific proposal which we believe will be helpful to the Subcommittee in its consideration of patent law revision.

The comments under both parts are made with knowledge of the views of the Department of Commerce presented to the American Patent Law Association at its meeting here in Washington on January 24, 1968.

PART 1—SUMMARY OF POSITION GENERALLY SUPPORTING S. 2597

The Cleveland Patent Law Association favors careful revision of the patent law and endorses in principle the proposals embodied in S. 2597. We are strongly opposed to many of the provisions of S. 1042 including several which the Administration apparently still supports.

S. 2597 is consistent with our foremost concern that legislation preserve and strengthen the incentives for Americans to invent and invest, which we regard as the heart of the U.S. patent system. A need for strengthening the incentives is suggested by indications that the number of U.S. patents granted to U.S. Nationals has not increased proportionate to U.S. population growth in the last 35 years.

S. 2597 preserves the rather uniquely American feature of awarding a patent to the first inventor in return for a full and complete disclosure of the invention to the public. It rejects the un-American idea of automatic publication of patent applications by the Patent Office at a fixed time without the consent of the applicant and irrespective of whether they have then been examined.

Several sections of S. 2597 strengthen the incentives in important respects. Section 263 gives statutory guidance to the courts as to the proper exercise of

patent rights. Section 100(g) introduces a presently-needed incentive-oriented clarification of the requirement that an invention be "useful" to be patentable. Section 271(b) places a U.S. patent on a process on an equal basis with similar patent in most foreign countries by providing for its assertion to prevent importation of products made abroad by the patented process.

We regard S. 2597 as also embodying a balanced approach to fulfilling other purposes for revision, which we approve, and which in our words, would enable the system to function:

- more promptly, so that the public need not wait long for full disclosure or the patentee for his reward;
- more certainly, so as not to mislead the public or the patentee as to the real value of their respective rights; and
- less expensively, so that the benefits of the system remain available to those of limited financial resources.

Promptness in functioning of the system depends partly upon diligence of the applicant in prosecution of his application in the Patent Office but mostly upon the Office keeping reasonably current in its work of examination. Section 154(b) of S. 2597 fixing the patent term at 20 years from date of application provides strong incentive for promptness on the part of the applicant. Good progress in the direction of promptness by the Office has been made through changes in examination procedure within the framework of existing law. S. 2597 adheres to the "first-to-invent" rule and, we believe, thereby permits this progress to continue.

A fundamental change to a "first-to-file" or "modified first-to-file" system might significantly increase the examination work load in the Office and tend to defeat further "backlog" reduction. This is because any first-to-file system would seem to remove the defense of prior invention in the present law, retained by S. 2597, and force the maker of a minor improvement to enter the patent system for a determination of patentability when he might otherwise proceed to adopt the improvement and thereby benefit the public without regard to patent protection.

The problem of delay in disclosure to the public due to interference proceedings between rival claimants for patent on the same invention is eliminated by Sections 136(d) (2) and (3) and 137 of S. 2597. These Sections are deemed consistent with Principle "A" of our Association as set forth on page 5 and discussed at pages 8 and 9 of the Supplement hereto, although the approach is somewhat different. The important points in each approach are (1) the public receives disclosure of the invention after an application therefor is examined and determined allowable on issues aside from the issues of priority and originality of invention, and (2) the first-to-file has the procedural advantage, as under present law, but not such a substantive advantage as to preclude the doing of justice to one who proves himself a prior inventor who has not abandoned, suppressed or concealed the invention.

We support revision in the law to eliminate delay in disclosure to the public due to interferences but we oppose elimination of interferences. We also oppose the imposition of arbitrary time limits on proofs submitted by the parties in interference.

I turn now to revisions in the law which, hopefully, would make the patent system function "more certainly", i.e., those which have been proposed as an aid to "quality and reliability" of patents. Many of these seem to be advanced on the theory that if the Patent Office could issue patents of more assured validity there would be less likelihood of their being tested in the courts and the much-discussed differences in "standard of invention" applied by the Patent Office and the courts would be largely eliminated.

In this connection, we respectfully invite the Subcommittee carefully to consider our comments in the Supplement hereto beginning with Principle "H" on page 22 and continuing to the top of page 25. We think it most significant that if the courts failed to disagree with the Patent Office as to the patentability of some inventions on which patents are granted, the Office could not be applying the same standard as the courts but would in fact be applying a different and higher standard. For the reasons stated in the Supplement, we strongly oppose enactment of a statutory "Burden of Persuasion" on the applicant or a "Presumption of Correctness" for the Office as in Sections 137 and 148 of S 1042, the substance of which is apparently still favored by the Administration, and we support S 2597 because it contains no such provisions.

On the other had, we strongly favor statutory provisions enabling citation to the Patent Office by anyone of prior publications and patents which bear on

the patentability of an invention. If there were such provisions, neither the public nor the patentee would be as likely to be misled into thinking a patent is stronger or weaker than the record indicates. Our Principle "G" set forth and discussed on pages 20 to 23 of the Supplement hereto goes farther toward this desirable end than does Section 136(a) through (c) of S 2597, as will be explained in detail in Part 2 of this Statement. Enactment of provisions in the law fully consistent with our Principle is, in our opinion, the best, yet simplest and cheapest, means of attempting to legislate "quality and reliability" of patents.

The question of whether an invention was in public use sufficiently early to affect validity of a patent is, however, a matter which requires open testimony and, in our view, is best left to the courts. We, therefore, do not favor Section 136(d) (1) of S 2597 as an effective means for improving quality or reliability of patents.

S 2597 contains several provisions which eliminate present technical requirements and in this way tend to reduce the expense of patents. It leaves the matter of fixing Patent Office fees in the Congress which we agree is desirable.

In S 2597, separate fees for publication after allowance and for issuance thereafter are required by Section 151 in view of Section 136. Our Cleveland Association's "plan" as set forth in Principles "A", "D" and "G" of the Supplement accomplishes essentially the same objectives as Sections 123, 136, 137 and 151 of S 2597 without the expense-increasing and time-consuming separation of publication and issuance and we suggest it be given thoughtful consideration.

We favor simplification of procedures so far as possible so that the patent system is available to all, particularly the independent inventor, at reasonable cost.

We proposed in Principle "C" of the Supplement a slightly broader definition of "prior art" than that found in Section 100(h) (4) of S 2597. We do not now urge its adoption, since the most recent view of the Administration seems to be that revisions in the definition of "prior art" can await further progress in achieving the goal of an International patent. Our Association endorses the latter as a long-term objective attainable without departing from the incentive principles of the U.S. system.

All features of S 2597 (including the Amendments approved by the American Bar Association at its Honolulu meeting) not specifically mentioned in this Statement also have the support in principle of the Cleveland Patent Law Association.

PART 2—SPECIFIC PROPOSAL AMENDING AND SUPPLEMENTING S. 2597

As already stated, we strongly support statutory provisions for the citation to the Patent Office by anyone of prior patents and publications which bear on the question of whether a disclosed invention properly qualifies for patent under the law. Section 123 of S. 2597 provides for publication of pending applications at any time at the applicant's request and Section 151 provides for publication of all applications after allowance and before issuance. These provisions give the public a look at the disclosure of each invention prior to grant of patent and set the stage for Section 136, (a), (b), and (c) which provide for the above-mentioned citation.

However, under Section 136(a), citations are only in respect of published *applications* and under 136(b) they are considered in a reexamination procedure only if submitted within a period of 3 to 6 months after publication. We contend and propose that there should be opportunity for citation at any time, even after issue or grant and even if there is no assurance of further reexamination by the Patent Office.

Our proposal is somewhat analogous to the citation of liens as a matter of open public record on a Torren's Certificate for real property. Under it, the file of a patent is never "closed" and any interested party may put on record published information which affects the real value and enforceability of the patent grant.

Assuming Sections 123, 151 and 136(a), (b) and (c) of S 2597 are unchanged (and these Sections seem to have general support from the Administration as well as private groups) we propose the insertion in Chapter 25 entitled "Amendment and Correction of Patents", of a new Section 257 to make the principles underlying Section 136(a), (b) and (c) extend forward after grant throughout the patent term.

S 1042 contains in Chapter 25 a Section 257 entitled "Revocation", which permits a patent to be revoked by the Patent Office on instigation of a third

party within a 3-year period from issuance. This procedure is expensive, permits harrassment of a small patentee by powerful interests and is generally disfavored. The Department of Commerce apparently does not now specifically support it but is in favor of "provision of a supplementary period after the issuance of a patent by which the public could question the validity of a patent". In our view, our proposal has the same effect on "quality and reliability" of a patent as would Section 257 of S 1042 without the disadvantageous effects. We are hopeful that it can command widespread support.

The "Exhibit" to this Statement, which we request be printed with this Statement in the record of these Hearings, is a suggested amendment to S 2597 implementing our proposal. Our proposed Section 257 of S 2597 follows the general form of Section 136(a), (b) and (c). Proposed Section 257(a) provides for citation to the file of the patent with notice to the patentee and with provision for statements to be filed explaining pertinency of the citations. Proposed 257(b) is analogous to 136(c); proposed 257(c) gives the patentee the right to restrict his patent in the light of the citations through the established avenues of re-issue and disclaimer and proposed 257(d), analogous to 136(b), makes clear that the procedure is optional rather than mandatory.

However, to provide a penalty against a patentee who seeks to enforce in court a patent which has in effect been "knocked-out" in whole or in part through a citation on the record and who has failed to restrict to salvage any "good" remaining portion, the proposal amends Section 285 dealing with attorney fees to refer to Section 257 and give the court discretion to assess such fees against such patentee.

The wording of Section 285 is further amended so that a court in its discretion and in the interest of justice may also award attorney fees in favor of a patentee and against one who challenges the patent.

We believe our proposed amendment to S 2597 would strengthen the patent system in many respects, including the following:

(1) It recognizes the possibility that very pertinent publications will be "missed" in the desirable prompt examination occurring in the Patent Office, as so often happens and always will happen.

(2) It recognizes that members of the public may have no reason to make an independent search during the "citation period" of Section 136(b) because of a then lack of interest in the subject matter of the patent, but can have a compelling reason so to do at a later date when interest has developed.

(3) It provides a more or less automatic and continuous "quality check" on the searching process in the Patent Office and should enable the Office to correct any glaring deficiencies in its classification and searching system.

(4) It does not impose an appreciable additional work load on the Patent Office. The professional staff of the Patent Office is not required to do anything after a citation against an issued patent unless and until there is an application for reissue of the patent.

(5) It does not harm the patentee or subject him to harrassment by more powerful third parties. If he is convinced his patent is "good" as granted, he need do nothing after a citation. On the other hand, he is helped by being able to put on record publications which later appear and seem to strengthen the patent.

(6) It should reduce expensive patent litigation and have an overall effect of strengthening the presumptive validity of a patent at the time the patent is litigated.

We believe that our proposal will have no harmful effect on the incentives of the U.S. patent system and that it is a step in the direction of making the system operate more promptly, more certainly and in the long run less expensively.

We, therefore, respectfully commend it to the attention of this Subcommittee.

Mr. Chairman, I am personally honored to have had the opportunity to appear here and I express the sincere thanks of the Cleveland Patent Law Association for the attention given to our position and proposals. As a patent lawyer, and I think the Patent Bar generally agrees, I am much impressed by the thorough and objective approach of this Subcommittee to the problems confronting the patent system. The problems are complex and perhaps cannot be solved quickly and easily.

PROPOSAL OF CLEVELAND PATENT LAW ASSOCIATION FOR AMENDMENT OF S. 2597

(To provide for citations to file of issued patents, restriction thereafter by reissue or disclaimer and possible penalty on failure to restrict)

On page 30, following line 35, insert the following new section :

"257. Citation of Record of Patents

"(a) At any time after issue of a patent and during the term thereof any person may cite on the record of the patent in the Patent Office any patents or publications which may affect the validity of the patent and which do not then appear in such record. Such citation shall be in writing to the Commissioner who shall cause notice thereof to be given to the patentee and endorsed on copies of the patent thereafter distributed by the Patent Office. The Commissioner shall establish regulations providing for the submission and disposition of statements to the Patent Office bearing on the pertinency of the patents or publications cited.

"(b) The identity of a person making citations or submitting statements under subsection (a) of this section shall be kept in confidence by the Patent Office and no information concerning the same shall be given without the authority of such person, unless necessary to carry out the provisions of an Act of Congress or in such special circumstances as may be determined by the Commissioner.

"(c) After any citation in accordance with subsection (a) of this section, the patentee may restrict his patent in the light of the patents or publications cited, by reissuing the same in accordance with the provisions of section 251 of this Title or by disclaimer in accordance with the provisions of section 253 of this Title. All such citations of record shall be considered by the Patent Office in the examination of applications for reissue of the patent. If the patent is reissued, the reissued patent shall be subject to the provisions of section 252 of this Title.

"(d) No proceeding or failure to proceed in accordance with any of the provisions of this section shall operate as an estoppel against any party or otherwise affect a judicial determination of validity of a patent except as provided in section 285 of this Title in respect of an award of attorney fees."

On page 35, delete the sentence appearing in lines 15 and 16 and insert the following :

"(a) A party to a civil action who prevails in an assertion of invalidity of a patent because of patents or publications cited on the record of the patent in accordance with the provisions of section 257 (a) of this Title before commencement of the action, may be entitled to an award by the court of reasonable attorney fees in the absence of timely restriction of the patent in accordance with the provisions of section 257 (c) of this Title.

"(b) Irrespective of the provisions of subsection (a) of this section, the court in its discretion and in the interests of justice may award reasonable attorney fees to any appropriate party in cases involving patents."

STATEMENT OF THE CLEVELAND PATENT LAW ASSOCIATION ON PATENT REFORM LEGISLATION INCLUDING S. 1042 AND H.R. 5924

I—PREFACE

The charge has been made that patent lawyers oppose changes in the law because of their self-interest. This is not the case with respect to "The Patent Reform Act of 1967" introduced as S-1042 and H.R.-5924.

Patent lawyers generally, both those in private practice and those employed by corporations, estimate that if the bill is enacted their work will be greatly increased and probably more than doubled. In spite of the anticipated increase in personal income, they oppose many of the changes because they will be contrary to the interest of the public, both as to immediate effects and long-term consequences. Others of the proposed changes are approved, as explained below.

II—OBJECTIVES AND INCENTIVES

The Administration "Patent Reform" Bill before Congress (S-1042; HR-5924) was "shaped from" the Recommendations of the President's Commission on the Patent System which was appointed for the purpose of seeking ways "to insure that the patent system will be more effective in serving the public interest". The Cleveland Patent Law Association in its study of the Bill has therefore con-

centrated on the Recommendations rather than the Bill language, and has taken the introduction to the Commission's Report as being the starting point from which to proceed.

That introduction sets forth six objectives as being the goal of the more than thirty Recommendations. They are:

1. to raise the quality and reliability of the U.S. patent.
2. To shorten the period of pendency of a patent application from filing to final disposition by the Patent Office.
3. to accelerate the public disclosure of technological advances.
4. to reduce the expense of obtaining and litigating a patent.
5. to make the U.S. patent more compatible with that of other major countries, wherever consistent with the objectives of the U.S. patent system.
6. to prepare the patent system to cope with the exploding technology foreseeable in the decades ahead.

The association concurs in and endorses these objectives and also applauds and acclaims the Commission's statement that the U.S. patent system has well served its constitutional purpose of promoting the progress of the useful arts through provision of incentives, which the Commission saw fit to summarize. We hold that attainment of the objectives is no more to be desired than is preservation of the incentives which make the system work.

The incentive principle—rights of exclusion for a limited period to the inventor in the form of a patent grant in return for the benefits he confers on society by making and disclosing his invention—has long been recognized and is never out of date. It is inherently self-regulating since the monetary gains, made possible by the right to exclude others, are necessarily determined by the practical value of the invention. This incentive principle was not new with the U.S. Constitution having already been known in each of the thirteen colonies and in the European countries from which the colonists came.

But the U.S. patent system developed under the U.S. Constitution—with its concepts of individual rights and fair play and its safeguards against the placing of power in the hands of the few—has been unsurpassed among the patent systems evolved throughout the world. It is almost unique in combining the fair requirement that only the first and true inventor receive the award of a patent with the just insistence that the public receive not only a full disclosure of how to practice the invention but also a definite indication, through examination prior to grant, of how the rights of the inventor distinguish from those the public already possess.

The first U.S. patent law in 1790 provided for grant of patents on things "not before known or used" with provision for others to contest the right to a patent within one year. In 1793, interference proceedings were authorized to decide priority between rival inventors, and interference proceedings have been a feature of our system ever since.

When examination of patent applications was instituted in 1836, a grace period before filing to give the inventor time to test and prove out his invention and thus more fully disclose it to the public, was added almost immediately, and this too has been an important part of our system.

In contrast, European countries lacking our traditions of personal freedom and individual justice, accustomed to rigid codes, adopted the practice of granting patents to the first applicants without regard to first inventorship, and, in some countries, the practice of publishing the patent without prior examination or determination of the inventor's rights. Nevertheless, there have been moves in the direction of our system, such as the German six months of grace for the inventor, and the French consideration of supplementing its registration system with an examination report. Further changes in the patent systems of Europe, some toward features of our system, are even now being discussed.

It is alleged by some that the U.S. system has "bogged down" to the point of needing a major overhaul. Should it be rebuilt with foreign parts when the foreign machine is in trouble too? Should we abandon the features which are at the core of the U.S. system by copying European techniques?

Our Association believes that things can and should be done to make the U.S. system run better, faster and cheaper. But we strongly contend that what is done should reflect new approaches primarily compatible with our basic incentive system so as to continue to promote progress in our country, with only secondary consideration given to their value in the ultimate design and development of a patent system which can readily be embraced by peoples elsewhere.

III—PRINCIPLES VERSUS THE COMMISSION'S PLAN

The Commission referred to its Recommendations as all part of "one inter-related and coherent plan". We think the interrelationship between some of them is close indeed, while as to others it permits of separate treatment. In this section, we shall deal primarily with the basic features of the "plan".

Following due deliberation and study, the Cleveland Patent Law Association contends that preservation of the incentives of the U.S. patent system, together with maximum attainment of the six objectives identified by the Commission, can be accomplished through departure from the "plan" and adherence to the ten principles in italic below:

A. Patents should be granted in the name of the first inventor, with a simplified procedure in the Patent Office for ascertaining the first inventor:

- 1. A patent shall be granted to the first applicant.*
- 2. A subsequent applicant within one year after such grant, may contest the right of the first applicant by demanding a priority decision, and if successful may be entitled to a patent.*

The only substantial objection to the established American system of granting patents to the first inventor is the need for a procedure for determining who the first inventor is and the fact that our interference procedure has become too complex, slow and expensive and results in prolonged pendency of applications and undue delay in expiration of patents. Even this objection is over-emphasized since it applies only to the very small percentage of applications which become involved in interference contests.

The Commission proposes as a part of Recommendation I a strict First-to-File system with complete elimination of interferences to achieve several supposed benefits:

It is contended that the change will eliminate the need for careful record keeping, but a researcher needs records for other reasons.

It is contended that the change will be as fair as the present system, but there is no fairness in a system which obviously encourages scientific espionage.

It is contended that the person first to file is more apt to be the inventor who first appreciated the invention and acted to make it available to the public but this falsely assumes that an invention arises instantaneously in a completed form.

Opposed to these contentions, it is clear that the change would require filing of applications for patent on every idea as promptly as possible, to forestall acquisition of incontestible priority dates by others.

The resulting race to the Patent Office would greatly alter the manner in which inventive activity is conducted. It would multiply by many times the number of applications filed, at least in some fields of activity, and greatly increase the number in all fields, with increase of the work load of the Patent Office.

The change in emphasis would tend to encourage speculative filing of applications on unproven inventions by "idea men" rather than actual development of useful commercializable inventions, and would retard rather than promote progress.

The need for haste in preparation of applications would tend to cause a great deterioration in quality of patents, not only because of the haste, but also because full information as to performance of the invention would generally not be available at the time.

The change would definitely favor big business, since small concerns would not as easily be able to pay for the continual surveillance of developments and prompt filing of applications on every idea.

In the case of inventions requiring public testing for completion, and to a great extent in all other cases, it would be impossible to file properly without testing and impossible to proceed with normal stepwise development through successive stages of testing and modification, except at the hazard of complete loss of patent rights. This would often result in failure to obtain any protection irrespective of how meritorious the invention might be.

The change would eliminate proof of prior invention as a defense against a patent. This would make it hazardous to adopt minor improvements which are normally dedicated to the public by failure to apply for patents and would discourage rather than promote progress.

Expensive litigation would increase since the body of case law developed under the first-inventor system would be nullified and the courts would be called upon to develop entirely new concepts of what the law has become.

The present first-inventor system encourages early publication and availability to the public by elimination of most hazards and has maximum effect on stimulation of competitive research.

The present first-inventor system is essential to the U.S. requirement of full and complete disclosure of how to practice the invention and to the U.S. practice of application examination and definition of the grant through peripheral claims.

Countries with a first-to-file system operating at all successfully are either non-examination countries, or do not require the U.S. type of disclosure and claims. It is therefore not a feature which can be successfully adopted for the sake of "harmonization" with other industrial nations.

Certainly the imperfection of interference practice is no reason for abolishing the first-inventor rule. A step in the direction of simplifying interferences has already been made through the new Patent Office interference rules and their full effect, which could be quite beneficial, is not yet known.

We propose further steps—the elimination of interference declaration by the Patent Office as between applicants and the grant of patent to the first applicant with right in a subsequent applicant to provoke a simplified procedure in the Patent Office to determine priority.

Many of the faults with present interference proceeding are traceable to the imposition on the Patent Office, an administrative agency, of a task it is not really equipped to perform—the determination of first inventorship on the basis of evidence produced in the same manner as in a proceeding in court. If the evidence is confined to affidavits with supporting documents and exhibits, the Office would be able promptly to reach a priority decision based on the preponderance of such evidence in the light of existing legal concepts of conception, diligence and reduction-to-practice.

In the few cases in which the loser of the priority contest considers cross-examination of his opponent as necessary, that right could be had in a *de novo* proceeding conducted in a District Court either through instigation of such proceeding by a losing junior or through the present interfering patent statute (Title 35, Section 291) in the case of a losing senior. In neither case would the public be unduly prejudiced or unduly benefited by the rival inventors continuing their contest in the Courts.

One substantive change in the law is contemplated. A foreigner could present his evidence of first inventorship in the same manner as a U.S. citizen and the place where the invention is made would be immaterial. This would promote international harmony in patents since our experience is that foreign criticism of U.S. interferences is not so much directed to the first-inventor system as the fact that foreigners are not permitted to prove acts performed abroad where their inventive activity naturally occurs.

Our principle would assure no delay in publication of subject matter due to priority contests. When combined with a patent term dating 20 years from filing (see Principle E) it would provide the mechanism of and strong incentive for prompt disposal of priority contests.

No substantive rights of an inventor would be destroyed, and grant to the first applicant giving rise to a prompt right of action against infringers would strongly discourage delay in filing.

Our principle achieves the objectives desired with respect to interference practice, without the disastrous effects to the U.S. system of granting patents on the basis of first-to-file.

B. A grace period is beneficial to the applicant and to the public and should be preserved.

The Commission's proposed First-to-File system eliminates the one-year period of grace before publication or public use of an invention becomes a statutory bar. There is some recognition that this would prevent necessary testing in the market place as well as early discussion in the scientific community, and this defect is supposedly cured by institution of preliminary applications (Recommendation II). The problem of derivation is also recognized (Recommendation III) but the right given by the Bill Section 105 to negate improper disclosure of one's invention requires proof both of derivation and breach of confidential disclosure, which encourages theft and makes the exception-to-grace-period-elimination almost incapable of affording any relief.

We hold that a grace period as in the present law should definitely be preserved.

The grace period is beneficial for the same reasons as retention of the first-inventor rule. It makes it possible for inventions to be tested, modified and de-

veloped into the best possible form and for patent applications to describe inventions fully in the manner in which they are commercialized. Description before formal commercialization is actually impossible in many instances since the invention arises only as the commercialization occurs. The grace period results in the "weeding out" of inaccurate concepts and unworthy ideas and leads to quality in applications which are actually filed. It provides time for the applicant to compare the invention with the prior art with the result that fewer applications which do not advance the art are required to be filed.

The grace period encourages early availability of technology to the public. It permits exchange of scientific results through open discussion at technical meetings and publication in technical journals at an earlier time and in a more useful fashion than if the public first heard of an invention through patent teachings. It eliminates research duplication, leads to improvements at an earlier date and encourages disclosure to the public of the inventor's full effort in reducing the invention to practical form, which might never occur if only the concepts were published by another without sufficient details to actually instruct the art.

Without the grace period the individual inventor, who is still an important factor in progress, could not demonstrate worth of his invention for the purpose of securing financial backing, and would be at a decided disadvantage in comparison with heavily-financed and organized research.

The grace period is not a real "booby-trap" with respect to foreign patent protection since large concerns interested in foreign patents can easily control publication dates and only a few civil-law non-examination countries such as France and Italy negate novelty on the basis of "prior public use anywhere", the meaning of which is itself uncertain.

No sound reasons for elimination of a grace period have been presented. The Commission says it would eliminate affidavits antedating references, but this would be offset by the need to review inexpertly prepared preliminary applications for the same purpose of antedating references.

The only other asserted benefit is international uniformity, but no real uniformity of foreign laws exists now. This is a subject best explored in connection with revision of the International Convention since it is quite possible that other countries may wish to move toward a more effective grace period harmonizing with our system.

With respect to international search reports, there is such a great variation in national definitions of prior art that an effective international search would need be made with reference both to the earliest possible priority date and the latest (generally one or two years apart). Each country would then merely delete from the search report any publication which is too late under local law or which fails to qualify for some other reason such as unavailability in the country at the priority date. Here again, we cannot unilaterally achieve harmonization with the diverse laws of foreign countries, and should proceed very cautiously in attempting to do so.

The ability to file preliminary applications is no substitute for the grace period. If a preliminary is to have any value in establishing rights it must disclose all features to be claimed in the complete application and its preparation could not be entrusted to one lacking knowledge of the patent law. It would be of no more value than the British provisional which experience has shown to require doubled effort and to lead to many undesirable complications.

The proposal for preliminary applications of a kind which can be filed by laymen, and which will not be published as a part of the patent, poses a particularly troublesome problem, since the complete application may be quite different in form and content. This would make it very troublesome to determine to what extent each claim may be entitled to the benefit of the date of the preliminary application. Even worse, when the patent is cited as prior art, it will be impossible to determine from the printed patent whether the subject matter relied on in it is actually in the preliminary application, which means that the effective date of a reference will not be ascertainable without examination of the Patent Office file.

The case for retention of the one-year grace period is in our opinion a very convincing one.

C. Prior art which bars grant of a valid U.S. patent on an invention shall include:

1. *Public use or sale in this country of an embodiment of the invention before the grace period or before the applicant's date of invention.*

2. Publication of the invention or of the fact of public use or sale of an embodiment thereof in any country, provided that such publication was both known and available in tangible form to persons in this country before the grace period or before the applicant's date of invention.

The proposals of the Commission with respect to prior art are accepted in part. Thus, with respect to public use in foreign countries, there should be a reasonable test as to qualification of the use as "public" for the purposes of our domestic patent law. Similarly, with respect to publication, the qualifying word "printed" may be somewhat obsolete, but there should be some test having a reasonable relation to the purpose.

First, a public use or sale in this country should continue to be a bar. It can be proven with reasonable facility under the Federal Rules of Civil Procedure. This does not apply to foreign acts, even though close to our border, because of differences in laws and procedures.

Before discussing foreign uses, consideration should be given to manner and place of proof. "Public use" proceedings are not now provided for in the statute, although they are mentioned in the rules of the Patent Office and are occasionally commenced. They are even more troublesome and expensive than interference proceedings. It is surprising to find the Commission strongly urging complete abolition of interferences and at the same time proposing to make general use of another similar procedure.

This seems to stem from the false notion that perfection can be achieved, with absolutely all prior art considered by the examiner so that all patents will be impregnable. Since this goal can only be approached, a more reasonable statement of the role of the Patent Office is needed. The Patent Office can properly be expected to deal with published prior art but should leave the far more difficult defenses which require taking of testimony to be dealt with in the courts after litigation is commenced. Public use proceedings in the Patent Office should be eliminated.

A foreign use may be known to people in the locality, yet be completely unknown everywhere else, and particularly in the United States. In such a situation, progress is best promoted by an incentive to create the same invention in this country so it can be put to use here. When that is done by an act of original invention, patent protection should not be destroyed because an intensive search after the event may turn up an unknown use in a distant place.

Similarly, with respect to publication, irrespective of whether "printing" is involved, the test should be whether people in this country had means of knowledge, so that the invention did not have to be recreated by an independent act of original creation.

The Commission proposed as a test that prior art be "known to the public or made available to the public by means of disclosure in tangible form". We have made this slightly more specific to require that it be both known and available in tangible form to persons in this country. This would not require that complete information actually be in this country on the critical date but only that existence of the information be known here before the critical date, and that the complete information be then available in tangible form, so that persons in the United States will have actual, practical access to the information and not have to recreate it.

Our definition does not mention foreign patents separately, since they are merely one kind of source of information. Foreign patents should be treated as prior art only if they meet the same test as any other publication, but not if they are secret or are completely unknown in this country on the critical date.

The other part of the Commission's proposal, that U.S. patents based on foreign applications be treated as prior art as of the foreign filing dates, is not approved, as it has no logical basis. This proposal is an outgrowth of a recent observation that combination of language of unrelated sections of the present statute would apparently justify such use of foreign dates as the effective dates of U.S. patents as prior art. The Commission's report states that this proposal would resolve uncertainty caused by conflicting court decisions, but the conflict has now been resolved in the opposite direction by reversal of the District Court of the District of Columbia so that the courts all agree now that this proposal is not supported by the existing statute.

It is not logical to use a foreign filing date as the effective "prior art" date of a U.S. patent but not to do so in the case of a foreign patent which has no corresponding U.S. patent. In both cases it is best not to use the foreign filing date

because of uncertainties as to whether the disclosure of the patent was actually in the originally filed foreign application.

Under the first-inventor system with a year of grace, it is also desirable to retain the present defenses of prior inventorship by another, and prior patenting by the same inventor in a foreign country, but no separate discussion of these defenses appears to be necessary.

D. Applications for patent should preferably be published as a part of the issued patent at the time of grant.

Consequently procedures should be such as to encourage prompt action by the Patent Office and prompt response by the applicant without time-consuming complications, so that patents can be granted and published within one or two years, as was generally the case until recent years. Nevertheless:

If the patent is not granted within two years, the application should be published if it appears to contain novel subject matter and if the applicant is given an opportunity to withdraw the application to avoid publication.

The U.S. patent system is in a real sense based on contract theory. The consideration from the applicant is full disclosure to the public of his invention, and the consideration from the Government, representing the public is the patent grant. To require disclosure through publication at a given time after filing without then assurance of grant reduces the incentive to the inventor to seek a patent and pushes him toward the protection of secrecy, which is directly contrary to the objective of public disclosure of technological advances, the very objective sought by the Commission in its Recommendation VII.

Other objectives would also suffer in that publication of applications without regard to novelty of content would produce much duplication in disclosures (not even permitted in scientific journals) thereby adding "paper" only to the "explosion" with which one has to cope and inevitably lengthening the pendency of patent applications.

On the other hand, when there is delay in grant of a patent with a disclosure which does advance the art, and if the applicant wishes to waive some of his "quid-pro-quo", there should be provision for applicant-authorized pre-grant publication.

E. The term of a patent shall expire 20 years from the filing of the first United States application on which the applicant relies for an effective filing date for all or any part of his claimed invention.

The Commission's Recommendation XVIII as to measurement of the term of patents from filing rather than from the issue date is accepted, since it provides desirable incentives for expediting prosecution. Since this penalizes delay in filing dependent or related applications, we think there is no real necessity for time limits on filing of such applications proposed in Recommendation VIII.

The proposal of the Commission in Recommendation XX that a terminal disclaimer should not overcome a holding of double patenting is unsound. There has been great confusion about double patenting, which originally meant issuance of two patents to the same inventor on identically the same invention. Many patents have been rejected on this ground even though the inventions involved are not actually the same, but are alternative inventions or improvement inventions or otherwise closely related but different inventions. Where the inventions are by the same inventor and are patentable over other prior art, they are generally permitted to be claimed in a single patent, but in the past, requirements for restriction to a single invention were frequently followed by rejection for double patenting. This was so obviously unjust that two corrective provisions were placed in the 1952 revision of the statute.

The first correction was to prohibit the practice of requiring restriction and then rejecting claims because of the consequence of the requirement. The second was the authorization of terminal disclaimers.

The reason for terminal disclaimers was that one of the asserted justifications for double patenting rejections was that grant of the second patent would be an illegal extension of the patent monopoly beyond a single 17 year term. So by disclaiming the part of the term beyond the 17 year term of the first patent this attempted justification is eliminated. No reason for neutralizing this benefit has been explained. In any event, the measurement of the term from filing rather than from issue date largely eliminates the problem.

F. Broadened reissues should not be completely prohibited, but the time in which they may be sought be reduced to one year.

Reissuance of patents to correct inadvertent errors arose by necessity, and was approved by the Supreme Court, before there was any statutory authorization. This occurred in a situation in which extension or broadening of protection was involved. Since then, the courts have declared that broadened reissues must be sought within a reasonable time, and the maximum time was finally declared to be two years, by analogy to the two year grace period then in effect.

When the 1952 recodification was enacted, the decision law on this point was codified and the two year time limit on broadened reissues was fixed, even though the grace period had been reduced to one year a considerable time before then.

This time limit is analogous to the rule against late claiming of subject matter disclosed but not originally claimed. Allowance of new claims to previously unclaimed subject matter is absolutely barred if the claims are first presented more than a year after a publication. In fairness to the public, the same rule should apply, regardless of whether the broadened claims are presented before grant, or after grant in an application for reissue, and regardless of whether the publication is by another or is the publication of the patentee's own patent.

Complete prohibition of broadened reissues proposed in Recommendation XVI would needlessly deprive patentees of protection in many situations in which the original claims fail to define the invention properly. Such a statutory prohibition could even be invoked to destroy patents when the change is actually only a clarification, because a technical analysis of the claims could make it appear that a slight extension of scope had occurred.

A revision of the statute limiting the time for presentation of broadened claims in reissues to one year is accordingly proposed.

G. Citations of prior art that bear on the subject matter of an application or patent may be made of record at any time by any one including the applicant or patentee. Notice shall be given to the applicant or patentee of any such citations submitted by others.

1. Such prior art shall be added to the list of prior art appended to the specification, and shall appear on copies subsequently sold, but shall be distinguished from prior art cited by the Patent Office unless actually reviewed by the examiner before allowance of the case.

2. An applicant or patentee shall have the right at all times to restrict his claims by amendment or disclaimer or reissue to avoid any adverse effect such additional prior art may have on the validity of his claims.

3. A defendant in an infringement suit who prevails against a patentee because of prior art so cited may be entitled to a judgment for his attorney's fees, in the absence of review by the examiner or timely restriction by the patentee.

The Commission emphasized the importance of reliability of patents, which apparently means that if and when litigated the protection should be held by the court to correspond exactly to the apparent scope of the claims in the patents. Such a goal is obviously not realizable for two reasons. First, all the prior art can never be ascertained with any certainty, but the intensive searching during litigation almost always turns up significant prior art not previously cited. Second, the apparently proper scope of protection depends on the effect of the invention on actual progress of the art which undergoes change with time, and depends even more on the individuality of the person or persons judging the matter who more often than not will disagree.

Incidentally, the stated intention of the Patent Office to measure the quality of the examining operation and of its output of issued patents (Recommendation XII), and the proposal for periodic reviews by a statutory Advisory Council (Recommendation XXVI) show a commendable concern for improvement in quality. The exercise of judgment is inherently incapable of measurement and not much can be expected by concentrating on this phase of the operation which is already under the scrutiny of supposedly competent supervisors. Substantial improvement in classification and searching could be expected by subjecting these operations to the control of a completely independent search, which can be accomplished by requiring prior art known to applicants to be disclosed after (and not before) the examiner's search is reported. The requirement for independence of search would greatly enhance completeness of knowledge of prior art and would immediately disclose weaknesses in the classification and searching system so they could be corrected.

The elaborate procedures for learning of prior art recommended by the Commission include compulsory publication (Recommendation VII) followed by cita-

tion of prior art by the public (Recommendation XI), and another citation period and reexamination after allowance (Recommendation XI, chart 2) with consequent delay of about a year before issuance, taking of testimony to establish public uses with further long delays (Recommendation XI) and finally cancellation proceedings which may be commenced up to 3 years after issuance (Recommendation XV), so that scope cannot be known with even approximate certainty until some 6 to 10 years after filing. These should all be replaced by some simple procedure which will not consume such inordinately long time.

The procedure now proposed is simplicity itself. It permits citation of prior art by any one at any time without positively requiring any action unless the citation occurs before allowance, in which event the examiner would normally review the cited prior art, and if appropriate would use it in rejection of claims.

The public would benefit, as would the patentee, by avoidance of delays in issuance of the patent. The public interest would be better protected by simple notice of additional prior art, putting the burden on the patentee to reissue or take the risk of invalidity, than by the elaborate, time consuming, and still inconclusive procedures suggested by the Commission.

H. An applicant who has filed an application for patent in proper form should not be denied a patent without a showing of good cause authorized by the statute. After a rejection or objection or requirement, the applicant should have the burden of proceeding, and should be entitled to a patent unless the preponderance of available evidence establishes a basis for denial of the requested patent.

The Commission proposed (Recommendation X) that applicants should have the "burden of persuading" the Patent Office that a claim is patentable and Bill Sec. 137 so provides.

This sounds harmless enough to patent attorneys who know that they have always had the burden of persuading an examiner who has rejected a claim that he should change his mind and allow it. That is, it sounds harmless until its consequences are analyzed.

Similarly, the Commission proposed (Recommendation XIII) that Patent Office decisions "be given a presumption of correctness" and not be reversed unless clearly erroneous. Again a presumption of correctness of a decision has always existed in the sense that an appellant must show why it is wrong before it can be reversed. But the Bill Sec. 148 goes far beyond that and says such a decision "shall be upheld unless it is without substantial basis".

These proposals for a "burden of persuading" and a "presumption of correctness" seem to be intended to make it more difficult to obtain a patent, so that every patent will be of high quality, impregnable and free from criticism. This reach for perfection would be commendable were it not that the goal of perfection is unattainable and the means selected would destroy incentive and oppose rather than promote progress.

The Report referred to instructions of the Commissioner of Patents to the Examiners, not to allow claims if there is any doubt as to patentability "in obedience to the views expressed this year by the Supreme Court" (Recommendation X). This evidently refers to the comment by Mr. Justice Clark in *Graham v. Deere* 353 U.S. 1, 18; 148 USPQ 459, 467 (Feb. 21, 1966):

"We have observed a notorious difference between the standards applied by the Patent Office and the courts."

and the subsequent admonition:

"for the Commissioner to strictly adhere to the 1952 Act as interpreted here."

There should be no occasion for any new rule, statutory or otherwise, to assure adherence to the existing Act. If the Commissioner and other members of the Patent Office swerve from the correct interpretation of the Act, the appellate tribunals and ultimately the Federal Courts will set them straight.

"Difference in standards" needs careful thought. The Patent Office grants about 50,000 patents a year. An equal number are rejected and never become patents, because they do not meet the statutory standards. A tiny fraction reach the courts, and almost none reach the Supreme Court.

In performance of its task of examining patents the Patent Office has no difficulty in deciding that some are clearly unqualified, but some are inevitably borderline cases, as to which reasonable people will disagree, some considering them obvious from the prior art and therefore unpatentable and others considering them patentable.

It is only borderline cases that engage the attention of the courts. That is what courts are for. Other cases are normally disposed of without litigation. If half the cases are decided one way and half the other way, the standards are being applied fairly uniformly, and that is about what the court statistics on patent litigation have shown. On the other hand, if only patents of highest quality were granted so that all would be found valid by the courts, the standard would be an improper one, since the Patent Office would have eliminated all the borderline cases which are difficult to decide correctly. Then, paradoxically, the fact that the courts agree with the Patent Office in every case would prove that their standards are different, that the Patent Office is rejecting the borderline cases and preventing them from reaching the courts at all for a final authoritative decision.

The "burden of persuasion" and the "presumption of correctness" would effectively nullify the provisions for appellate review, and permit the Patent Office arbitrarily to reject meritorious inventions without any effective recourse.

What is needed is a balanced approach as set forth in our statement of Principle. The language that applicant should be entitled to a patent "unless" in Section 102 of the statute should be retained. The Patent Office should not deny a patent without showing of good cause authorized by statute. The burden should then shift to the applicant to show by preponderance of the evidence that his subject matter qualifies for grant of a patent, and the decision of the Patent Office should be subject to the normal judicial review as to correctness.

To provide otherwise is definitely against the incentives. If an error is made in grant of a patent it can be corrected by the Courts, but if error is made in denial of a patent the inventor's rights are irretrievably lost and his incentive to make further inventions may be destroyed forever.

I. The U.S. Court of Customs and Patent Appeals should be the sole court of review of Patent Office decisions.

1. An applicant on good cause shown may be entitled to supplement the Patent Office record.

2. Decisions of the CCPA should continue to be reviewable only by the Supreme Court on certiorari.

The proposal for an additional appeal from the Court of Customs and Patent Appeals to the Court of Appeals of the District of Columbia appears to result from the unwillingness of the Patent Office to accept criticism and correction of its errors. One instance is the attempt to push the effective date of references back to foreign filing dates, but this has now been overruled by both courts. Another is the adherence of the CCPA to the long standing rule that a patent can properly be granted even though there is some doubt as to absence of obviousness.

It was only a few years ago (Act of August 25, 1958) that the CCPA was definitely given the status of a constitutional court. It is coordinate in rank with the Court of Appeals of D.C. since the CCPA is itself a court of appeals hearing appeals from a lower court—the Customs Court—and its decisions are reviewable only by the Supreme Court. It would be a great step backward to relegate our finest and most experienced patent law court to a subservient position. It would also greatly increase expense and delay to provide this further appeal.

If there is still concern about occasional differences in interpretations of law, this can be corrected most effectively by requiring *de novo* proceedings to obtain patents to be heard by a single judge (either from the CCPA or from another court on temporary assignment) with appeals to the entire court without participation by the trial judge. As an alternative such proceedings could be heard by the full Court, with additional evidence as to patentability submitted on affidavits or otherwise as the Court may direct. However, retention of the present procedure should be almost equally satisfactory, since the two courts provide an effective check on each other's performance.

A minor but troublesome procedural matter concerns "reasons of appeal" which are now required in CCPA proceedings. Every one seems to agree that they should be eliminated, as was provided in the Administration bill.

J. When the Government acquires any right under any patent to exclude others from the practice of an invention, every citizen of the United States, including incorporated business enterprises, should have an irrevocable free right to practice the invention.

There has been much controversy as to who should own and who should have the right to operate under patents on inventions the creation of which was paid for in whole or in part by the United States Government.

The Commission declined to take a position on this particular issue (Recommendation XXXII), but did suggest (Recommendation XXXIII), that patents be permitted to be based on inventor's certificates, thus impliedly approving ownership of U.S. patents by Communist governments, which are essentially the only ones awarding inventor's certificates, and which are in a position to exercise complete control over the resulting U.S. patents.

It is repugnant to our principles of individual freedom to permit a foreign government to own and exercise important economic rights of exclusion.

It is also repugnant to our concept that the Government is the people collectively, to have the Government use tax funds collected from its citizens to create inventions, grant patents to itself, and then use the patents to exclude its citizens, who paid for them, from use of the inventions. Yet that is exactly what many apparently sincere people are vigorously trying to authorize.

The National Association of Manufacturers have a policy statement dating from 1952 that the Government should not own patents but if it does they should be available free to all citizens, and The American Patent Law Association in the summer of 1963 adopted a similar resolution.

A constitutional question exists as to whether the Government has the right or power to exclude its citizens from practice of Government-owned inventions, since the Government is the citizenry, and such a grant by the Government to itself could be considered the grant of all rights to all citizens, which would effectively extinguish the patent.

It is recommended that legislation at least go as far as the APLA resolution in assuring U.S. citizens the right to practice Government-owned inventions. Serious consideration should be given to a further step, declaring that whenever any right of ownership in any U.S. patent is acquired by any government, domestic or foreign, the patent shall immediately and irrevocably lapse and be permanently in the public domain.

IV—OTHER ADMINISTRATION PROPOSALS

The Administration bill follows the Commission's Recommendations as to some features which we regard as independent of the "plan"; it omits or departs from other features and, of course, it does not deal with Recommendations inappropriate by their nature for enactment into law. The Cleveland Patent Law Association has considered all these and expresses its views in the paragraphs below:

Patentable subject matter

Recommendation IV proposes changes in the present classes of patentable subject matter in respect of designs, plants and computer programs while the Bill deals only with the latter by providing for their non-patentability in Section 106.

We are opposed to any new limitations on what can be protected, on the ground of preservation of incentives, and since the effect on attainment of the objectives is not significant.

We favor the carefully-considered proposed legislation for copyright-type protection on industrial designs and urge that it be passed by the Congress. If and when it is passed, consideration should be given to the elimination of design patents from the patent law.

We concur in the Commission's suggestion of further study to determine the most appropriate means of protection for breeders of plants and seeds. We suggest, in addition, another study to determine the feasibility of statutory protection for engineering drawings and engineering designs, as to which there is widespread piracy.

We oppose statutory non-patentability of "computer programs" and favor the principle that all fields of activity, whatever their nature, should be considered on the same footing with respect to whether a patent can be obtained as a result of activity which would qualify under Section 101 of Title 35. Any exception in the statute could serve as a precedent for further exception and would nullify the proper court function of interpreting the meaning of the law in the light of changes in types of activities being pursued. Methods of doing business are not patentable as processes under existing judicial interpretations and the courts are quite competent to determine whether any particular kind of "computer program" falls within the existing statutory classes of inventions. No need is seen for legislative action to clarify existing law.

Assignee filing and joinder of inventors

The Association endorses Recommendation V and those sections of the Bill which would bring it into effect. This is a commendable elimination of technical defenses which should improve quality and reliability, reduce expense and delay, and promote uniformity with foreign laws. It is consistent with the objectives and does no violence to the incentives since safeguards for the rights of the inventor are preserved. His contribution will continue to be identified with his name and ownership of his rights can not be acquired without his consent.

Infringement by importation

Recommendation XXI is a desirable placement in the patent law of a provision to the effect that importation into the U.S. of a product made abroad by a process patented in the U.S. shall constitute an act of infringement. We approve of re- placement of the present unsatisfactory provision of the tariff law with an effective provision in the patent law.

However, the Administration Bill proposal in its new Section 271(b) emasculates the Recommendation by restricting the effect to importation "for purpose of trade or use in trade or industry" which would seem improperly to eliminate infringement liability by the Government, and adds a proviso that protection for the process must not be "available in such country," the purpose and the effect of which are most unclear. These two provisions should be deleted.

Statutory "rule of reason" for determining patent misuse

One of the few Recommendations of the Commission which was apparently rejected by the Administration in formulating its Bill is Recommendation XXII which would impose a statutory "rule of reason" for determining patent misuse, thereby preventing certain licensing acts from being considered "per se" violations of antitrust law.

We deplore the fact that the Administration saw fit not to follow this Recommendation which is also one of the few which clearly favors the patentee.

Patent infringement litigation in the Federal courts

Three recommendations were made with respect to patent litigation, having to do with discovery procedure, trial on an agreed statement of facts, and undesirable relitigation of validity.

Discovery procedure can be so extremely prolonged, expensive and troublesome that it was proposed to appoint "civil commissioners" to supervise and control this part of the litigation procedure (Recommendation XXIV). This is not a problem peculiar to patent litigation and should be corrected at its source, by revision of the Rules of Civil Procedure, rather than by treating the symptoms, which may simply shift the problem to a different location. It is understood that moves in the direction of revision of the Rules are already underway.

The recommendation that a simplified trial procedure be provided if both parties agree (Recommendation XXV) does not require action since such a procedure is possible now. It is almost never used, since any proposal of this kind by a litigant would cause the opponent to fear that it would be to his disadvantage.

The suggestion that a decision of invalidity of a patent be dealt with as though *in rem* so that no other suit on the patent could ever be brought (Recommendation XXIII) is not generally favored, as it might have unjust consequences. The few cases in which relitigation of patents really presents a problem can be dealt with effectively by the courts without any change in the law.

Patent Office operations

We concur wholeheartedly in the proposition stated in the first paragraph of Recommendation XXVII that the Patent Office should be adequately supported to insure first-class staffing, housing and equipment and we endorse the principle that the Patent Office should not be required to be self-sustaining.

However, we do not favor relinquishment by the Congress and delegation to the Commissioner of substantially all authority to fix patent fees as proposed by the Administration in Section 41 of the Bill. The authority could too easily be misused to price inventions out of the Patent Office or to discriminate against the taking of actions by applicants which the Commissioner does not favor. In this and in other respects, as has been noted, we think that the Bill goes entirely too far in the direction of vesting all control in the hands of the Administration.

We are in favor of continuation and acceleration of studies and efforts to improve patent classification systems, institute methods of mechanized searching and information retrieval, etc. as recommended in Recommendations XXIX.

The heart of the patent "problem" is the making of a quick and complete prior art search in the Patent Office followed by application of the search results by capable, experienced, practical and judicially-minded patent examiners.

In our opinion, most of the alleged trouble with the Patent system can be solved through concentration of efforts on continued improvement in Patent Office operations. Progress has been made on the "backlog" through changes in practice, such as the institution of "compact prosecution", within the framework of existing law. We think other changes, such as separation of the scientific and judicial functions of examination, at least on a trial basis, might lead to further efficiencies in practice. Such a separation is being seriously considered in connection with simplification of international patent procedures.

We greatly fear that enactment of the Administration Bill would cause the efforts toward improvements in operation in the Patent Office to come to a grinding halt because of the many adjustments, new functions, etc., which are required by Administration-proposed drastic changes in the system.

International action

In the Section of the Commission's Report headed "International Action" there are three Recommendations XXXIII, XXXIV and XXXV, all related to the ultimate goal of a "universal patent". While refraining from comment on revision of the Paris Convention, which is outside the scope of the Bill, we agree that the goal is desirable.

As to the direction now to be pursued in achieving this goal we quote the following from the Commission's Report:

"Any attempt by revolutionary change, to scrap present systems in favor of new ones, in the United States or abroad is neither feasible nor desirable."

Our analysis of the Administration Bill convinces us that it is in far too many respects a scrapping of the present U.S. patent incentive system and we vigorously advocate that the Congress enact an alternative consistent with preservation of the incentives.

V—INCENTIVES FOR PROGRESS

The Commission in the Introduction to its Report stated that "a patent system is capable of continuing to provide an incentive to research, development and innovation." Does our patent system do this as well as it should?

The only measure of inventiveness available to us seems to be the number of patents applied for or granted per capita. Even though it is not a perfect measure, it gives a useful indication of the extent to which our patent system is benefitting the nation.

The number of patents per 100,000 population in the United States remained remarkably constant between 35 and 40 for many decades, until 1932, and then dropped sharply. Two things occurred in the thirties—the great depression, and an intensive attack on the patent system by President Roosevelt and the New Deal philosophers. 53,000 patents were granted in 1932, but the number dropped to less than half and did not again exceed 50,000 until 1959, twenty-seven years later, with patents per 100,000 then below 30 because of the great increase in population. Since then, the Commissioner has reported that increases in applications for patent are accounted for by inventions made in foreign countries, with domestic inventions remaining almost constant in number despite steady increases in population.

This suggests that first attention should be given to restoration and enhancement of incentives, to strengthening of assurance that a meritorious invention can be patented, to simplification of procedures, and reduction of cost of obtaining the patent. This means rejection of the Commission's numerous obstacles to patenting, complication and prolongation of procedures, and consequent expenses to owners of inventions; and adoption of only those Recommendations which will truly promote the stated objectives without diminishing the incentives for progress, as explained above.

These important principles and benefits will generally be realized by adoption of the Bill drafted by the Section of Patent, Trademark and Copyright Law of the American Bar Association, which is approved in general principle by The Cleveland Patent Law Association.

Further improvement in details of language and effect may be attained by adoption of the specific provisions for various sections of the Act as proposed in the appended outline entitled "Substitute Language for Sections of the Patent Act".

VI—SUMMARY

In summation, the Cleveland Patent Law Association—

Endorses such portions of the Administration Bill as are based on Commission Recommendations which retain the incentives of the U.S. Patent System and further the objectives identified by the Commission.

Urges modification or elimination of other portions of the Bill in accordance with the Principles we have stated in order also to preserve the incentives and further the objectives.

Affirms the proposition that the Patent Office should be fully supported to enable it to move continuously forward in performance of its functions but opposes the giving to it of legislative or judicial authority, and

Believes it essential in the interests of progress in our nation that the current hearings in Congress should be deliberate and thorough with as much consideration given to alternate patent bills as to the one backed by the Administration.

Senator McCLELLAN. The next witness?

Mr. BRENNAN. Mr. ROSS.

Senator McCLELLAN. Mr. ROSS, identify yourself, will you please, and also your associate.

Mr. ROSS. Mr. Chairman, I am Karl F. Ross. I am past president of the American Association of Registered Patent Attorneys & Agents and currently its legal counsel, and with me is Mr. Albert L. Gazzola, who is president of the association and who, I believe, will address the committee.

Senator McCLELLAN. Very well, Mr. Gazzola, you may proceed. Do you have a prepared statement?

STATEMENT OF ALBERT L. GAZZOLA, PRESIDENT, AMERICAN ASSOCIATION OF REGISTERED PATENT ATTORNEYS & AGENTS

Mr. GAZZOLA. Mr. Chairman, I want to mention in my introduction here that we do have a prepared statement. Mr. ROSS will submit this prepared statement as a matter of record.

Senator McCLELLAN. The statement will be received and printed in the record.

Do you want to testify in addition to the statement—

Mr. GAZZOLA. Right, sir.

Senator McCLELLAN (continuing). To highlight it or to comment upon it, maybe. Proceed.

Mr. GAZZOLA. We certainly want to thank you for this opportunity, sir. We have authorized one of our members, Counsel ROSS here, to represent us here in the oral testimony today. I merely want to say that he will not stick to the written testimony but will digress from the written testimony. We will have a rather short presentation.

I would like for Mr. ROSS to speak for the organization.

Senator McCLELLAN. Very well. Mr. ROSS, you may proceed.

STATEMENT OF KARL F. ROSS, LEGAL COUNSEL, AMERICAN ASSOCIATION OF REGISTERED PATENT ATTORNEYS & AGENTS

Mr. ROSS. Thank you. I would like to start by identifying the Association, which is the American Association of Registered Patent Attorneys and Agents, and the only nationwide organization representing the interests of practitioners before the Patent Office who are not members of the bar.

We welcome this opportunity to testify on the proposals pending before this committee on amending the existing patent statutes, because we believe, along with many others, that the revisions are long overdue and we are particularly gratified to see that there is one bill pending before the committee which goes a long way toward doing that and modernizing the American patent system. We would have liked to subscribe wholeheartedly to that bill, which is S. 2597, the American Bar Association bill introduced by Senator Dirksen, were it not for one provision which we as an association and as individuals strongly feel would do harm to the American patent system, a provision which would deprive the American inventor and the American industry of the expert advice in preparing patent applications before the Patent Office, and of the professional help which the American inventor and American industry sorely need.

I am referring to section 31 of the proposed statute, the bill S. 2597, which, by adding a few short sentences to the current regulations on the subject of persons permitted to represent applicants before the Patent Office, would bring about something which this committee and the Congress have wisely refrained from doing so far; namely, to turn over control over the practitioners to the individual bar associations of the several States.

Senator McCLELLAN. What is the real objection to it? I have an open mind. I want the real objection. It just seemed to me that this is a highly technical area, that skilled and learned people are in this field. They are required to make proper and adequate presentation in a very technical and conflicting area.

Mr. Ross. I would like to say it in positive terms rather than in terms of objections to it. We have been faced in this country for many years—for a number of decades—with a shortage of qualified practitioners before the Patent Office. We have experienced the fact that inventors and industry find it difficult to obtain qualified counsel and assistants, qualified representatives to plead their cause and to draw up proper patent applications before the U.S. Patent Office.

Senator McCLELLAN. Is that because now anyone can appear before it?

Mr. Ross. No, it is not that anyone can appear there. Since 1924 there has been the provision that only persons qualified to represent and to render useful service to inventors and applicants may appear before the Patent Office, except for the inventors themselves, who can plead their own causes. It is since 1938, 30 years ago, that the patent profession in this country was split down the middle—was split down the middle by the establishment of two separate registers—a register for patent lawyers, members of the bar of their respective jurisdictions, and those not members of any bar—patent agents.

Senator McCLELLAN. What is that?

Mr. Ross. Patent agents. I do not know if you are familiar with the term "patent agent." It is a renowned profession in Canada, in Great Britain, and in other countries, but not in this country. This title was not known here before 1938. It was introduced in 1938 into the U.S. patent system and it is not generally understood by the general public. In fact, an inventor sometimes believes that a patent agent is somebody who would sell his invention, which, of course, is the task of a patent broker, not a patent agent.

It had been the practice up to 1938 to call every practitioner a patent attorney, and this is still widely done by the public. The public thinks that way. Nevertheless, the patent agent has now come into existence for 30 years, and for 15 years this association has been bent on not only protecting the interests of the patent agent, but also elevating the professional status and standards of the patent agent. There exists a myth which should have been exploded long ago and which, I think, is the basis for the thinking that a patent agent is a freebooter with no legal duties to any organization or authority, who can advertise as he pleases, and who has no ethical considerations. This is not so. The patent agent, like the patent attorney, is under the strict jurisdiction of the Commissioner of Patents. Like any attorney he may not advertise and does not advertise. And we take pride—our association takes pride in the fact that we were instrumental in promoting the new regulations which forbid advertising for attorneys and agents alike.

Senator McCLELLAN. Let me ask you one question there. These agents that you refer to generally, are they competent and knowledgeable in the law so as to fully protect the rights and the interests of the applicants?

Mr. Ross. Mr. Chairman, let me answer this question this way.

Senator McCLELLAN. Of those seeking a patent, and I am not interested in giving a monopoly to lawyers as such or to impose upon an applicant conditions that would be an undue burden and an imposition upon him, but I do think that we must not overlook the fact that the applicant should also be protected from exploitation, that is, from someone who is not really qualified to represent him in protecting his interest. So I would be searching for that ground which is essential to the protection primarily of the applicant.

Mr. Ross. I fully understand. I share your concern for the ethics and the standards and the effectiveness of the profession, in order to protect the rights of a client who comes to the practitioner, whether he be an attorney or an agent. We have today a situation where technology has advanced very rapidly. Human life has not been so commensurately lengthened.

A person willing to enter a profession can study only so much. He can get a degree in engineering or chemistry or he can devote his energy and stamina to going to law school for a law degree.

I should like to point out that in a survey conducted 5 years ago we found, that among about 8,000 practitioners admitted to practice before the Patent Office, about one-fourth were technically qualified people without a law degree.

Senator McCLELLAN. One-fourth?

Mr. Ross. One-fourth, yes. And another one-fourth were patent attorneys, lawyers, with no formal technical education. And the remaining two-fourths, or one-half, were lawyers with technical qualifications and some of them were not members of the bar associations of their own States.

Senator McCLELLAN. I do not know the answer to this. I think again in terms of employing a lawyer to do certain things. You speak of an agent or agents now, instead of being a licensed attorney, properly and adequately so to represent clients in this field.

As I said, I am not concerned about providing a monopoly for the lawyers. I think two things should take priority. One is the protection

of the applicant, the party who has made an invention and, second, not to permit a situation in the practice before the Patent Office of those who are incompetent and that become a nuisance, burdensome to that agency. There has to be some proper standard to protect the applicant and also to protect the agents. I do not know whether it should be restricted to those who have a license to practice law or whether it should be some other alternative.

Mr. Ross. Senator McClellan, that is exactly what we are trying to accomplish by organizing the agents, so that they, too, should adhere to uniform ethical standards.

Senator McCLELLAN. What is the situation where you have an agent, and the matter gets into litigation—the agent is not prepared to sue in the courts.

Mr. Ross. The agent by necessity is a specialist, who has but one option, to practice before the U.S. Patent Office. He cannot, like an attorney, branch out into more lucrative or interesting fields.

Senator McCLELLAN. When the agent gets into court, then what happens?

Mr. Ross. He does not get into court. He does not do that.

Senator McCLELLAN. Then you have to have a lawyer in addition to the agent?

Mr. Ross. The agent is qualified to represent applicants only at the Patent Office up to the Board of Appeals. The rules are now, and presumably will remain, that he is not qualified to go into court, either to the CCPA or to the district court. He cannot draw up licenses, et cetera. He cannot participate in infringement suits. He cannot challenge the validity of any patent. This is the part of the lawyer. And that is exactly as it should be. But when it comes to the technical part of it before the Patent Office the agent by his specialization is necessarily, as a class, as competent as the best among the patent attorneys who are members of the bar.

Senator McCLELLAN. Maybe so—maybe equally so. A good many people practicing as lawyers are good lawyers but are not skilled in this particular field, whereas the agent can give better service than licensed attorneys. I see both sides, or I am trying to see both sides of it.

Mr. Ross. I would like to add one more thing. Technology and chemistry depend on universal laws of nature. The patent practice is nationwide. The standards of admission to the bars of several States vary widely, ranging from strict requirements as in the State of New Jersey, which prescribes a full curriculum of a university plus an extended clerkship, to a situation such as that which used to be the practice in Georgia, not so long ago, where a person could be admitted to the bar merely on the recommendation of two admitted lawyers. Now these widely varying standards of admission to the respective bars in the various States cannot make for uniform quality in the prosecution of applications for patents before the Patent Office, where, after all, there must be a uniform understanding, uniform ability to express complicated technical relationships.

I would like to add that what I stated before, about one-half of the practitioners before the Patent Office being lawyers plus being formally educated in some technical field, that is somewhat misleading, because after the Second World War a number of persons were subsidized under the GI bill of rights by the American Government to

acquire a second education. And not very many can do that in normal times. And we hope that there will be no similar occasion for such Government-financed project in the future. Not everybody has the stamina, the ability, and the physical strength to acquire a dual education in the technical fields and in the field of law.

I should like to point out, as to this legal education, that in the general curriculum of a law school there are very few subjects that truly bear upon patent practice. Generally there is nothing offered on that subject—there is no undergraduate course on patent law at most universities. There are some institutions that have graduate courses. There are many subjects taught in universities, in law schools, which have no bearing at all upon the practice before the Patent Office. Nevertheless, a person admitted to the bar must devote a large portion of his formative years to the study of these subjects. And I believe that with the increasing complexity of technology he would give better service to his prospective clients if he were to devote as much time to the technical sciences or the specific subjects relating to practice before the Patent Office.

I should like to say that we are not adverse to some program, on a national level, which would regulate the status of all practitioners and would prescribe a certain curriculum in the law, geared to the patent practice, patent law, particularly, which would turn out members of the patent bar in a uniform way. We would certainly support it if this were to be the case. We propose such a solution. We did that years ago.

Five or six years ago I was on the committee—on the Advisory Committee on Patents of the Secretary of Commerce—and I proposed in behalf of the association a national patent bar which would have exactly this end in view. And we are gratified again to find that the new bar association bill, S. 2597, has a provision for a single tribunal, the CCPA, dealing with patent problems as distinct from the present diverse jurisdiction between the CCPA and the district court. And we believe that if this comes to pass, as it should, this court should have jurisdiction over all members of the profession. And every patent practitioner, be he called agent or attorney or by some new name, should be an officer of the CCPA just as a lawyer is considered an officer of the local court. We believe that this should and will come to pass, and we are willing and eager to cooperate with the legal fraternity to bring it about. We believe that this would be a solution which everybody would find satisfactory. We certainly believe this would assure the maximum protection, legally and technically, to applicants for U.S. patents.

Meanwhile, I do not think that we should fall back to an age where the lawyer, because he was the most educated man of the community, was turned to on whatever problem in any field came up.

There are a number of countries which are not highly industrialized where the patent practice is in the hands of the lawyers, because the lawyer is the only one who can read complicated documents, but in this country, with its advanced stage of development, that is not so.

I had the privilege to appear before this committee in behalf of our association about 12 years ago. The committee was then considering the raising of the fees which were then \$30 for the filing and \$30 for the issue of a patent. At that time we presented a proposal that if the fees had to be raised at all, the burden should be on the final fee, rather

than on the filing fee, because this is when the applicant knows that he has some protection, when he will be more willing and more able to meet the increased charge. We are happy to know that this proposal of ours, upon the subsequent revision of the U.S. Patent Statute, was taken into account.

We were also pleased, as I said before, that our second proposal, on the national patent bar, at least led to the establishment of the proposed establishment in this bill of a single court which may bring this about.

We fervently hope that the viewpoints which we have now presented dealing with a universal bar, a national bar which will raise the standards for all practitioners alike, which would impose certain requirements on the technical level and on the legal level, will become a reality.

I should like to point out in conclusion that one section of this bill, section 7(a), deals with the fact that the Commissioner, the Assistant Commissioner, and the examiners in chief shall constitute a Board of Appeals. Verbatim it states: "The examiners in chief shall be persons of competent legal knowledge and scientific ability."

It says here "legal knowledge." There is no requirement expressed in this bill that they be members of any particular bar. This evidently recognizes that the examiners in chief can have the competence and legal knowledge without being formally admitted to a local bar.

Senator McCLELLAN. If you are going to have a lawyer present the case, you ought to have a judge hear it, is that what you are saying?

Mr. ROSS. Yes. I think they are to be on a par. The examiner is expected to be legally qualified, even though not a lawyer. We would go along with any provision in the bill saying that anyone wishing to practice as a patent attorney or agent before the Patent Office must prove that he has the necessary legal knowledge.

Thank you.

Senator McCLELLAN. All right, sir. Thank you very much. Is there anything further?

Mr. GAZZOLA. I would like to add one final note to the testimony. We are proud of some of our agents who have been practicing in their various capacities and we are particularly proud of one person. And we would like to submit this as a part of our testimony. We have a Bible, as we call it.

(The witness holds up a book.)

Senator McCLELLAN. Not the whole book?

Mr. GAZZOLA. No, just the title.

Senator McCLELLAN. The title. [Laughter.]

Just the title—all right.

Mr. GAZZOLA. We have a bible known as the "Encyclopedia of Patent Practice and Invention Management." This is by an agent—published by an agent by the name of Robert Calvert, a distinguished agent, who has proven his ability as an agent during the years and has recently been in touch with our association. He has been a member of our association and active in the various proceedings we have had and he is now retired.

Senator McCLELLAN. Is this book in wide use?

Mr. GAZZOLA. The book is in wide use. And it is well known throughout the profession.

Senator McCLELLAN. The title may be supplied for the record.

Mr. GAZZOLA. Thank you very much. May I add one more point? I do not want to belabor it at all, but one of the members of the audience suggested that we should further emphasize that the Patent Office prescribes a written examination to insure that each person desiring to practice before the Patent Office is qualified in legal and technical matters before being admitted to practice. This examination is generally known as the patent bar examination in the profession and this examination is very difficult to pass. Should a man not be qualified to practice before the Patent Office he would not pass this examination.

Senator McCLELLAN. Thank you very much, gentlemen. Your prepared statement will be made a part of the record at this point.

(The prepared statement follows:)

STATEMENT OF THE AMERICAN ASSOCIATION OF REGISTERED PATENT ATTORNEYS AND AGENTS

The American Association of Registered Patent Attorneys and Agents, a nationwide association of patent practitioners on the roster of the United States Patent Office, dedicated to improving the standards of the patent profession, is the principal organization representing the interests of patent practitioners who are not members of a State Bar or members of the Bar of the state in which they are practicing. The Association has reviewed the numerous Bills before the Senate and other proposals dealing with reform of the Patent Laws. We are grateful for this opportunity to present our views on these matters which are of substantial importance to the public as a whole, to industry and the patent profession.

I. INTRODUCTION

The Association has already submitted its preliminary comments with respect to the proposals of the President's Commission and Senate Bill S 1042. These comments indicated that, while the basic endeavors of the President's Commission to render the patent system more compatible with the patent systems of other countries throughout the world was laudable, it was doubtful whether this could be obtained by the Bill. It was submitted that the Bill would unduly complicate rather than streamline, prosecution of patent applications in the United States Patent Office. Some of the basic premises and provisions of this Bill are not in the interest of the public industry, the small inventor, the large research corporation or others concerned with patent matters.

The Association now prefers to concentrate its discussion on the proposed revision of the Patent Statutes recently submitted as S 2597 by Senator Dirksen and presently before this Committee.

II. REVIEW OF S. 2597

The American Association of Registered Patent Attorneys and Agents has reviewed with care the provisions of this Bill (S 2597). As a whole, the Bill, which is a moderate attempt at a compromise revision of the patent laws is laudable and will help expedite early dissemination of scientific and technological information by providing for voluntary publication of patent applications upon request of the applicant.

Provisions of the Bill permitting the filing of a patent application by the equitable owner of the patent rights (subject to later execution by the inventors) will eliminate a significant inconvenience and much red tape. This is particularly applicable where patent applications arise from collective institutionalized research and development work.

The provisions of the Bill, which permit re-examination after publication of a patent or application, also fulfill, to a large measure, the intent of the President's Commission to create adversary proceedings, without introducing the disadvantages of the multiple adversary system.

Our Association is also pleased to observe that S. 2597 has assimilated a point made by the Association in our comments of S. 1042, namely, the strengthening of the U.S. Court of Customs and Patent Appeals by making it the sole Court with jurisdiction on questions of patentability prior to issuance of the patent. Our Association had earlier pointed out that any reform of the patent laws should recognize that the patent system is national in scope and that interpretation or

other questions involving patents should be based on a federal or national approach with consistency the rule rather than the exception. Each U.S. District Court establishes its own rules as to interpretation of a patent, as to validity and factual infringement of a patent, and as to the scope of the patent monopoly, accomplished by different approaches as to the weight given the Actions of the Patent Office, which is inconsistent with a national concept of the patent grant. We have proposed modifications whereby proceedings in a District Court are suspended and questions of validity and factual infringement are transferred to the U.S. Court of Customs and Patent Appeals. By placing in the hands of the U.S. Court of Customs and Patent Appeals sole jurisdiction on these questions, a thoroughly National Patent System, consistent throughout the federal districts, can be obtained, and the proposals of the present Bill are certainly an appropriate step in this direction.

III. OPPOSITION TO S. 2597 AS TO SECTION 31

We regret, however, that we cannot say that this Bill (S. 2597), is completely satisfactory or, indeed, that it should be passed as superior in toto to the present patent statutes. We call special attention to Section 31 of chapter 3 of the Bill—S. 2597, which would ban further admission of nonlawyer practitioners to practice before the U.S. Patent Office.

It has long been the practice of the Patent Office to allow nonlawyers skilled in scientific and technological matters to represent applicants before them. In 1922, Congress provided specifically that the Commissioner of Patents recognize both attorneys and nonattorneys to represent patent applicants. (The present statutory provision is substantially identical to the first sentence of Section 31 of proposed S. 2597.) Since that time the Commissioner has registered many qualified nonattorneys to represent patent applicants before the Patent Office.

To understand the background of this matter, it is important to note that, as of November 1962, 7544 persons were registered to practice before the Patent Office. Of these, 1801 were nonlawyers and lay practitioners who were not members of any Bar but who had shown that they "are of good moral character and reputation and are possessed of the necessary qualifications to render the applicants or other persons valuable service, advice and assistance in the presentation or prosecution of applications or other business before the [Patent] Office". (35 USC 31). An additional 1687 of those registered to practice were not members of the Bar of the state in which they were practicing, i.e. were treated as non-lawyers by the disciplinary branches of the legal State Bar.

In *SPERRY. v. FLORIDA*, 137 USPQ 578, the unanimous Court established that the prosecution of patent applications and like activities before the U.S. Patent Office under a federally granted license was the practice of a body of federal law which this Congress had authorized.

It has been requested of this Congress from time to time, to enact restrictive legislation which were of two types, namely, opening practice before the Patent Office to all attorneys-at-law, and limiting practice before the Patent Office to only attorneys at law. An effort along these lines, occurred last year, when the Government Operations Committee held hearings on a Bill which would have opened all of the administrative agencies of the Federal Government to practice by any attorney at law, regardless of qualification. Because of the high level of technical competence required of practitioners before the U.S. Patent Office, many organizations and individuals knowledgeable in the patent field, opposed the Bill as it applied to the Patent Office. In the Bill (S. 1466) which became law, the Patent Office was specifically excluded.

Since 1960, when the first proposals were made to modify Rule 341 of the Rules of Practice, to disqualify nonlawyers from future admission to practice before the U.S. Patent Office, this Association stated forthrightly that it fully supported any effort to improve the qualifications of patent practitioners, in the prosecution of patent applications before the Patent Office. We fully supported then, and now support, every effort to maintain and elevate the moral and ethical standard of the patent profession as enforceable by the Commissioner of Patents. This Association has recognized that the specifications and claims of a patent constitute a most difficult technical and legal instrument to draw and that great harm may befall an inventor who entrusts preparation of a patent application to a person lacking the requisite skills. Does a general legal background of the type necessary for admission to a State Bar provide "the requisite skill"? At the time the answer was in the negative. In *Sperry* (supra) the court took the same position.

Inventions have grown more and more complex and the preparation and prosecution of patent applications has become more technically complex with the rapid advance of science and technology. It is with this in mind that lay practitioners have been permitted to represent applicants before the Patent Office.

This Association, therefore, particularly wishes to register strong opposition to the provision of the Bill under Section 31, entitled "Regulations for Agents and Attorneys" wherein the qualifications to practice before the U.S. Patent Office are contained, particularly the complete sentence beginning with line 20 and ending with line 24 of this section of the proposed Bill, which reads as follows:

"Only members of the Bar of a state, territory, district, Commonwealth or Possession of the United States may be recognized as representatives of applicants, or practice before the Patent Office, except those representatives recognized to practice prior to the effective date of this Act."

We feel that this provision is a step backward because it will deprive the American patent system and the inventors of technically qualified nonlawyer practitioners, at a time when they are needed most. The skill required to prepare a patent application is not gained only or principally by the successful completion of a standard law course, or the abilities to pass a state bar examination. In fact, it is no slur on the legal profession to point out that very few of its members have the technical training and competence that is necessary for an understanding, *a fortiori*, of drafting a patent application or claim except for the simplest inventions. It is important to note also that the Examiners in the Patent Office, both here and abroad, who pass initially on all applications for patents (see 37 C.F.R. 1.101, et seq.) need not be lawyers, and in most cases are not lawyers. In the United States, they are required to have an engineering or science degree on a college level, or its equivalent in experience, but there is no requirement that they be trained in law. (See U.S. Civil Service Commission Announcement No. 181-B, issued February 10, 1959, revised October 1961, announcing examination for Patent Examiner.)

IV. EXAMINATION OF THE HISTORICAL DEVELOPMENT OF THE U.S. PATENT OFFICE

(1) Both lawyers and nonlawyers have effectively practiced before the Patent Office in the best interests of the inventor and the general public, since its inception. Only slightly more than half the number of registered practitioners are holders of both legal and technical degrees, but not all of them are members of the Bar in the state in which they practice, and some are not admitted to any bar. The remainder is about equally divided into practitioners without technical degrees and those without law degrees. However, all registered practitioners, since 1934, when qualifying examinations were introduced by the Patent Office, have had to establish to the satisfaction of the Commissioner that they have technical competence and ability to represent inventors before the Patent Office. There is no evidence that one type of practitioner taken as a class, is less competent than the other in practice before the Patent Office.

(2) The practice of registered practitioners both lawyers and nonlawyers before the Patent Office has not posed any problems which could not be solved by the Commissioner. These include problems of morality and ethics. However, neither the Commissioner nor the Bar has any control over people who are not registered to practice before the Patent Office and hold themselves out to be patent experts, nor will the provisions of this Bill have any effect on their behavior.

(3) Most importantly, the standards for practice before the U.S. Patent Office require proof of technical competence; knowledge of Patent Office Procedures; knowledge and understanding of the Patent Statutes; and proof of good moral character. There has been no insoluble problem as a result of these standards. Because of modern technical progress it may be necessary to raise the standards for admission to practice. The taking of this drastic action in this Bill at this time, however, in the absence of a showing of present or imminent danger, is completely unwarranted.

(4) At present, there is not an abundance of practitioners. To exclude from practice technically competent nonlawyers and non-bar members may result in a shortage of patent practitioners at the expense of the inventor and the general public.

(5) Patent practice in the highly industrialized nations is not exclusive to lawyers. Practitioners in other countries are selected with emphasis on scientific training and understanding of technical subject matters rather than on the gen-

eral knowledge of law. This excludes those underdeveloped countries with rudimentary patent systems, in which lawyers are chosen to represent the clients in patent matters because they alone are sufficiently literate to understand an involved document.

(6) The United States has a reciprocable agreement with Canada whereby both agents and lawyers registered to practice before the respective Patent Office are extended the courtesy of practicing in the other country. The exclusion of nonlawyers from practice before the U.S. Patent Office would necessarily include Canadian nonlawyers. This would be a step to international disharmony rather than harmony.

When S 2597 was presented to this body, the provision now under discussion was said to be necessary to enable professional associations, namely, the state bars to police those practicing law within their borders. However, it is doubtful whether the bill accomplishes this or whether such policing is desirable.

It must be emphasized that our association has long been in the forefront of those investigating unethical and illegal practices by registered patent practitioners and unqualified persons holding themselves out as qualified to practice when in fact they are not. Our Association joined with the Bar Associations in banning advertising by registered practitioners. This Association has time and again detected violations of Patent Office regulations or unauthorized patent practice and has called these matters to the attention of the authorities. In fact, this Association has done on a national level, without the benefit of the second sentence of Section 31, what should be done on a national level by all who are interested in furthering the interests of patent applicants.

Section 31 as proposed will not give a state bar jurisdiction over lawyers who are not members of the Bar in the state in which they are practicing in any manner in which they do not now have the right to act. The proposed Section 31 will not enable the state bars to deal with mail-order advertising and other unethical purveyors of alleged skills, none of whom, to the knowledge of this Association, are patent agents. It is respectfully submitted that a confusion appears to have entered the public mind since the presentation of this Bill; it is not the patent agents who advertise in national magazines, but unauthorized persons capitalizing on the gullibility of inventors who work at the borderline of the law. The Commissioner of patents has ample power to deal with these individuals and time and again such power has been exercised.

In conclusion, the American Association of Registered Patent Attorneys and Agents considers it imperative that, should S 2597 be passed, Section 31 be modified by striking the last sentence thereof. A proposed amendment to S 2597 is attached.

PROPOSED AMENDMENT TO S. 2597

A bill for the promotion of the useful arts by the general revision of the Patent Laws, title 35 of the United States Code, and for other purposes, viz:

On page 7 (Section 31), line 20, strike out the sentence beginning with "Only members . . ."

Cancel lines 21-24.

This amendment is proposed by the American Association of Registered Patent Attorneys and Agents to eliminate the provision which would restrict future admission to practice before the U.S. Patent Office exclusively to persons of the Bar of a state, territory, district, commonwealth or possession of the United States.

ADDENDUM TO PRESENTATION IN SUPPORT OF TESTIMONY RE PROPOSED S. 2597 BY AMERICAN ASSOCIATION OF REGISTERED PATENT ATTORNEYS AND AGENTS

(Excerpt from Memorandum dated October 13, 1960, addressed to Watson Davis, Esq., Chairman, Patent Office Advisory Committee, by Karl F. Ross, then President of American Association of Registered Patent Attorneys and Agents and a member of the Advisory Committee)

THE CASE FOR AN INDEPENDENT PATENT BAR

If the time has now come to raise the level of U.S. patent practice to parity with that of other recognized professions, then its development should not be hampered by ground rules tied to those of a sister profession. That which is a solid foundation for the general lawyer is but a Procrustean bed for the patent practitioner, a fact long recognized in other countries where the patent attorney or agent (as he is variously called there) has come into his own.

A synthesis of the best features among the suggestions made by both the proponents and the opponents of the measure under discussion shows that new standards are indeed desirable in order to establish that which, for want of a more appropriate name, may be referred to as a National Patent Bar. A suggested curriculum of university courses designed to lead to a degree qualifying for admission to such body might be as follows:

<i>Courses</i>	<i>Semester hours</i>
(a) Basic technical courses:	
I. General chemistry-----	3
II. General physics-----	3
III. Mechanical drawing-----	3
Total -----	9
(b) Advanced technical courses:	
I. Chemistry (inorganic chemistry, organic chemistry, petroleum chemistry, chemistry of industrial processes, physical chemistry)-----	6
II. Physics (electricity and electromagnetic devices, sound and audio devices, mechanics and heat, light, and optics, electronics and circuitry)-----	6
III. Engineering (principles of electrical engineering, engineering materials and processes, structures, mechanical engineering, chemical engineering)-----	6
Total-----	18
(c) Mathematics: Differential and integral calculus-----	6
(d) History of U.S. Patent Office and its operation-----	2
(e) Law courses:	
Common-law pleading-----	3
Equity-----	4
Contracts (including licenses and assignments)-----	6
Legal bibliography-----	1
Legal writing-----	1
Legal method-----	1
Agency-----	1
Partnership-----	1
Corporations-----	3
Evidence-----	4
Patent law (substantive)-----	3
Patent practice-----	3
Trademarks and unfair competition-----	2
Copyright law-----	1
Antitrust law-----	2
Total -----	36
(f) Foreign patent practice-----	3
(g) Various electives (minimum)-----	6
Total -----	80

The establishment of a patent profession on a par with the legal profession, but independent thereof, would heal the existing split and would eliminate all the inadequacies of the present system which have been justly criticized. The American Association of Registered Patent Attorneys and Agents, in line with the mandate given to its officers under its bylaws*), pledges its support to those within and without the legal profession who will strive for such a goal.

*) "... to uphold the dignity of the profession and guard against practices and practitioners tending to impose upon the public or otherwise bring the patent and trademark systems into disrepute; . . ."

Senator McCLELLAN. I believe that concludes the list of witnesses that we have scheduled for this series of hearings, save those who have consented to have their prepared statements printed in the record.

The Chair wishes to make a brief comment in closing this series of hearings.

The subcommittee has heard 21 witnesses on patent reform legislation. A number of statements have also been submitted to the subcommittee and these will be incorporated as a part of the hearing record.

As of now it does not appear that additional public hearings will be necessary but a final decision on this matter will await possible future developments. There may be something that occurs that would indicate that public hearings should be resumed. If so, they will be, but we cannot determine that at this time. In any event, the hearing record will remain open until March 1.

As a result of the very helpful and constructive attitudes and the spirit of cooperation that has been displayed during these hearings I am rather encouraged that the subcommittee will be able to report out a sound and practical patent revision bill. I hope so.

I welcome the statement made by the Commissioner of Patents, the President of the American Patent Law Association, and all others that they will assist the subcommittee in resolving these many technical issues. In other words, they will work with the counsel of the committee in this matter while we weigh the issues in an endeavor to resolve them.

I am directing the members of the staff to meet with interested parties in an effort to reach an agreement on controversial provisions of these bills so that they may be presented to the subcommittee for further consideration.

I hope that it will be possible for the subcommittee to report out a bill during this session of the Congress. This may be a rather expeditious session of Congress in that this is a political year when people will be wanting to get through much sooner than we did last year, to go home to campaign. I do not have to campaign this year, fortunately, but there are some of my colleagues who do. Even if we are unable for any reason not to report out a bill this year for Senate action we will have here a background of information, a record that should enable us to proceed without much further testimony to bring out a bill that represents progress or improvement in our present patent system and a revision of existing law, that would be beneficial to our inventors, discoverers, and also to the advancement of technology in this country.

I thank all of you who have appeared for your cooperation and the assistance that you have given us.

The committee stands adjourned.

(Whereupon, at 12:10 p.m. the subcommittee adjourned.)

APPENDIX

DEPARTMENT OF AGRICULTURE,
Washington, D.C., February 29, 1968.

Hon. JOHN L. McCLELLAN,
*Chairman, Subcommittee on Patents, Trademarks and Copyrights, Committee
on the Judiciary, U.S. Senate, Washington, D.C.*

DEAR SENATOR McCLELLAN: This is in reply to your request of January 29, 1968, for a report on Amendment No. 511 to Sections 161 and 163 of S. 1042, a bill "For the general revision of the Patent Laws, title 35 of the United States Code, and for other purposes."

This Department is not in favor of the proposed amendment.

Sections 161 and 163 of S. 1042 relate to plant patents and are identical with the similarly-numbered sections of present Title 35 of the United States Code. To the extent pertinent, the subject sections read as follows:

"§ 161. Patents for plants

"(a) Whoever invents or discovers and asexually reproduces any distinct and new variety of plant including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state, may obtain a patent therefor, subject to the conditions and requirements of this title."

* * * * *

"§ 163. Grant

"In the case of a plant patent the grant shall be of the right to exclude others from asexually reproducing the plant or selling or using the plant so reproduced."

The proposed amendment would insert the words—*or sexually*—after the word "asexually" for the purpose of enlarging the class of patentable plants. Thus, where present 35 U.S.C. 161 and Section 161 of S. 1042 are limited to the protection of asexually-produced plant (e.g., plants which reproduce vegetatively, by grafting, or the like), the proposed amendment would include plants propagated from seed.

The Department of Agriculture objects to the amendment on two broad grounds: (1) It would threaten the continued existence of its long-standing programs for developing and introducing new varieties of seeds; (2) It is scientifically and legally unsound.

These two grounds are discussed separately below:

(1) The Department of Agriculture, either alone or in cooperation with the State Agriculture Experiment Stations and with private breeders, has, for many years, been engaged in a program of developing and introducing new and better seed varieties for the purpose of crop improvement. Such a program requires extensive periods of experimental planting and selective breeding to introduce desirable characteristics and eliminate undesirable ones. In this program, breeding lines that show considerable promise are sent to many locations for testing and evaluation. At harvest time, research personnel, seed producers, and farmers often inspect and pass preliminary judgments on the suitability of the selected seedlings as commercial types. When a new seedling is considered worthy of naming and introducing as a new variety, an official notice of release signed by the Department and the cooperators is issued. Seed producers or nurserymen are then notified and they are free to grow or propagate these new varieties for sale to the public.

The Department of Agriculture is at present bringing in from other countries new germ plasm in foreign varieties and the wild relatives of many of our crop plants. These new plants serve as sources of insect- or disease-resistance, hardi-

ness, or other valuable characteristics for breeding and improvement of our present day varieties. A few, after growing here under cultivation are introduced directly as crop plants or ornamentals, and are made available to nurserymen. This Department does not grow and sell seed or other propagating material to seed producers or growers. Foundation stocks are furnished without charge to all bona-fide producers who desire them. A substantial part of seed producers' business in this country consists of varieties developed by this Department and other public agencies.

The notable success of this program in developing and introducing for example, new disease-resistant and more abundantly-producing varieties can be attributed in large measure to the free interchange of information, experimental plants, and germ plasm among research workers without the fear of misappropriation and misuse of any of this material. If seeds and seed-producing plants had originally been included within the scope of the plant patent statutes, a free and uninhibited communication among breeders, both public and private, would not have been possible. Where we now have exchange of data, open discussion, and exchange of experimental plants, the possibility of obtaining a patent would have resulted in secrecy, with its consequent duplication of effort and greater expense in developing new varieties. It is safe to say that the high quality and abundant harvests of our seed-produced crops would not have reached their present proportions, but for the possibility of cooperation which the absence of patents on this category of plant engendered.

Should S. 1042 be amended to permit patenting of plants produced by seeds, it is inevitable that progress in the development of new varieties would be retarded. Restrictions on distribution would necessarily have to be imposed in order to protect the public interest and rights in plant materials under test. Without expensive and impracticable safeguards, superior patentable seedlings might well escape from Federal or State plantings, and without authority be patented by others.

It has been the policy of the Department of Agriculture, since the enactment of the present Plant Patent Act, not to apply for public service patents on new varieties developed under its research programs. If S. 1042 were to be amended as proposed, it would become necessary for the Department to abandon this policy and apply for patents to protect the public interest, as it does on inventions arising out of its other research programs. This would further delay and restrict the free interchange of information and germ plasm. Those harmed most would be the small breeders and growers whose continued existence is so dependent on the cooperation and assistance from the Federal and State agencies.

(2) Our second ground of objection to the proposed amendment stems from the fundamental differences between vegetative or asexual reproduction of plants and the reproduction of plants by seed. It is also because of these differences that patenting can be a satisfactory medium only for the protection of asexually reproduced plants.

One of the basic, almost axiomatic, prerequisites for patenting, after an invention has been made, is that the invention be capable of identification and distinction. This prerequisite obtains, not only at the time the invention is made, but for the life of any patent granted on it. If the patent is to serve the purpose for which it was conceived by the framers of the Constitution, the temporary legal monopoly it grants must be capable of precise definition and delineation. It is a scientific fact that asexual reproduction is genetically absolute and results in an exact replica of the original. Except for occasional mutations, which can be readily eliminated, an asexually grown plant will reproduce true to type and be reasonably capable of identification for the purpose of determining patent infringement. Such is not the case with seeds.

Just as asexual reproduction is genetically absolute, great difficulty is encountered in keeping a seed-propagated variety true to its original characteristics, performance, and uniformity. For example, it is difficult to control a variety's inherent tendency to vary and to change as the result of natural selection. The effects of variability are difficult enough to control in relatively stable lines of self-pollinated species; control is especially difficult in the less stable, cross-pollinated lines. As numbers of plants increase in succeeding generations, after repeated shuffling of countless genes, characteristics emerge which did not have the statistical opportunity to appear earlier. Such off-type plants will also arise by mutation and perpetuate their characteristics by seeds.

In addition to the just described sources of variation, deviations from type result from change in environment. Cabbage and tobacco are notable, but by no means exclusive, examples.

It must be remembered that the detailed features of a plant are the result of its heredity (its genes) and its environment. Although some varieties are less variable than others, no seed-propagated stock can be absolutely uniform in its hereditary makeup. Each different environment tends to increase variability of appearance or behavior; but there is no way in which the extent and direction of this variability can either be determined or predicted. There is almost unanimous agreement in the scientific community that there is no such thing as, and that there probably never will be such a thing as, an absolutely uniform and genetically stable variety that will behave identically regardless of the place where it is grown.

With the foregoing in mind, it becomes necessary to examine the impact of the inherent variability of seed-produced plants on the question of patentability.

Section 162 of S. 1042 (as does Section 162 of present Title 35) states that "No plant patent shall be declared invalid for noncompliance with section 112 of this title if the description is as complete as is reasonably possible." This language represents a relaxation of the strict requirements of Section 112 that (1) a patent specification "shall contain a written description of the invention . . . in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use" the invention and that (2) the specification "shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor regards as his invention." In other words, Section 162 resulted from the realistic acceptance by its authors of the fact that living plants of any kind could not be described and defined with the same precision as a machine, a composition of matter, or a process. What Section 162, therefore, permits is the description of a new variety of plant in terms of its morphology, agronomic performance, disease and insect resistance, and quality characteristics, and declares that a patent granted on a plant shall not be held invalid because the same precise, definitive language could not be used as in the description of an invention relating, for example, to a machine.

Although it is a simple matter for a statute to set forth guidelines or criteria for validity, a patent is of no value unless its owner is able to enforce it. That is, although the owner can come into court with a patent which, in the case of a plant patent, the statute declares is conclusively presumed to be valid, the court must still be able to compare the plant of the patent with the specimen accused of infringing. Unless the court can determine that an accused plant does in fact infringe and then either enjoin its further production or grant damages, the patent can be used for no other purpose than to harass and frighten off would-be competition.

When we speak of determining the existence "in fact" of infringement, we mean only the relative ease with which such a determination can be made. The great number of appellate reversals in ordinary patent infringement suits attests to the fact that, even when a mechanical or chemical invention can be defined with relative precision as to structure or composition, patent owners, accused infringers, expert witnesses, and the courts do not find themselves in automatic agreement on the issues of identity or equivalence. Because there are few universal guidelines to determine what constitutes a varietal difference, and because the criteria can vary from one species to another, it is difficult, if not frequently impossible, to render any conclusive, or even reasonable, opinion that any given asexually-reproduced plant is, in fact, a new variety.

On the basis of the previously discussed inherent variability of seed-propagated plants, it is obvious that it would not only be almost impossible, in the case of such plants, for the Department to advise the Patent Office in accordance with Section 164 of S. 1042, but that it would be even more difficult for a court to decide an infringement suit. To prove infringement, the owner of a patent on a seed-propagated plant would at least have to establish a *prima facie* identity between the patented and accused plants.

Although asexually-propagated plants remain genetically stable and do not change with time, we have already explained how this is inherently not possible when propagation proceeds via the sexual route, that is, by seed. Besides the previous illustrations of variability in cabbage and tobacco, many varieties of crop plants exhibit a change in genetic composition from year to year, so that a variety, in a few years, would no longer even fit the description on the basis of which it was patented. This is particularly true of cross-pollinated crops, such as alfalfa and the forage grasses, and of partially cross-pollinated crops, such as cotton, or where seed is produced in an area different from the area of adaptation.

The above circumstances make it virtually impossible to establish a *prima facie* identity in an infringement suit; and it is extremely doubtful that any scientist would risk his standing in the professional community by attempting to give expert testimony in favor of a plaintiff that an accused plant infringes.

Another problem that suggests itself is how to establish and describe a permissible range of variability within a variety, particularly for cross-pollinated or multiline self-pollinated crops, beyond which a change in variety will be considered to occur. A corollary problem also arises from the practice of improving varieties by selection within a given variety and breeding to emphasize a particular desired characteristic. At what point would infringement cease and a new variety be created? Would such an improved plant be patentably distinct from the parent, or would it be subject to rejection on the grounds of double patenting?

Because of the virtual impossibility of enforcing a patent on a seed-produced plant, the granting of patents in this area would become little more than an act of registration and defeat the very purpose for which the patent system was established.

A final aspect of the difficulty in enforcing a patent on a seed-produced plant is the necessity of policing the entire United States market. A machine or a chemical composition can readily be detected and tentatively identified as an infringement and traced to its source. How would a patent owner prevent a farmer from using part of his crop for further seeding or from selling a portion to his neighbor for such purpose? Because the terms of Section 163 of S. 1042 would protect only the mature plant grown from seed, but not the seed itself, the patentee would have to proceed against every innocent private grocer or supermarket owner in whose store an infringing head of cabbage was found. The patentee would also have to proceed against every homeowner who planted a flower garden from seed produced by an infringing grower, regardless of how remote the two were.

An aspect of the proposed amendment which appears to have been overlooked in the public discussion of the subject is the effect of reading Section 161 in the context of S. 1042 in its entirety. One of the basic changes which would be made in our patent laws if S. 1042 is enacted will be the granting of a patent to the first inventor who filed a patent application, rather than to the first inventor, as under the present law. S. 1042 would also eliminate the present interference practice by which priority of inventorship between two applicants is determined. In place of the latter practice, there would be substituted a publication of the pending application, and the public would be given the opportunity to present evidence to the Patent Office why a patent should not be granted. Because of the inherent difficulty of maintaining effective security around experimental plots of ground, it is not beyond probability that theft of new, but unreleased, varieties of seed would be added to the already notorious industrial espionage practices. Just as it would be impossible for any court to render a decision in an infringement action, it would be equally, if not actually more, difficult for the Patent Office to decide the merits of an opposition to granting of a patent on a seed-produced plant. Furthermore, because of the pressure on the breeder to file a patent application before his competitor does so, it is inevitable that premature application will be made for patents in many instances with the result that patents may be granted on insufficiently tested and, perhaps, improperly described varieties.

To summarize the foregoing discussion, we wish to state that it is our opinion that the proposed amendment would render administration of the plant patent statutes unworkable; it would introduce an impenetrable confusion into this aspect of the patent law; and it would inevitably inhibit research by preventing the free interchange of information and genetic material among breeders.

The Bureau of the Budget advises that there is no objection to the presentation of this report from the standpoint of the Administration's policy.

Sincerely yours,

ORVILLE L. FREEMAN.

U. S. ATOMIC ENERGY COMMISSION,
Washington, D.C., February 2, 1968.

HON. JAMES O. EASTLAND,
Chairman, Committee on the Judiciary, U. S. Senate.

DEAR SENATOR EASTLAND: Thank you for your letter of November 13, 1967, soliciting views on S. 2597, a bill "For the promotion of the progress of the useful arts by the general revision of the Patent Laws, title 35 of the United States Code, and for other purposes."

The U. S. Atomic Energy Commission supports the broad objectives set forth in the November 17, 1966 Report of the President's Commission to improve the Patent System, enhance the quality and reliability of United States Patents, reduce the prosecution time, accelerate the disclosure of technical advances, reduce expenses of prosecution and litigation, and to secure closer compatibility with other Patent Systems.

The AEC has considerable interest in both the United States and foreign patent systems in view of the patent provisions of the Atomic Energy Act of 1954, as amended, and the patent protection that AEC seeks on inventions and discoveries on AEC-sponsored research and development work. We deem that legislation which would minimize and simplify patent procedures will be beneficial not only to AEC and the Government, but to industry and the public at large.

Several of the sections of the bill, S. 2597, are of particular interest to AEC, either because of their relationship to the Atomic Energy Act of 1954, as amended, or because of their effect on AEC as a Government Agency interested in securing patent protection of inventions made in the course of Commission-sponsored research and development activities.

Section 152 of the Atomic Energy Act (42 USC 2182) provides for review by the United States Patent Office Board of Patent Interferences of determinations that an invention was made or conceived in the course of or under a Commission contract. Section 7(b)(3) of the subject bill accords to the Board of Appeals of the Patent Office the authority to act as a Board of Patent Interferences when performing duties described in Public Law 592, 82nd Congress, and other Acts of The Congress. This provision would presumably include the review provided under Section 152 of the Atomic Energy Act of 1954. The AEC has no objection to the transfer of the review function to the Board of Appeals, but the transfer should be made clear so that there is no question that the review authority is vested in the Patent Office Board of Appeals, particularly since it would be necessary for the Board to prescribe rules governing the procedures in such cases.

It is the Commission's practice to undertake expeditious and wide dissemination of technical publications and reports of research and development work, including inventions and discoveries resulting from Commission-sponsored research and development contract work. In view of the aforesaid practice, the Commission strongly supports the inclusion of Section 100(h) of a one (1) year absolute grace period following publication, use, or sale to permit the filing of a U.S. Patent Application on an invention.

One of the principal criticisms of the present Patent System is that no publication provision is made for disclosure of the subject matter of a patent application until the patent issues. Section 123 of the bill provides that an applicant may, upon the payment of a prescribed fee, request publication. It is our view that if patents cannot issue within two or three years, a mandatory provision for publication of patent applications as suggested by the Presidential Commission would be advantageous in informing the public with respect to the subject matter of the application. We would therefore subscribe to a provision that an application shall be published, for example, within eighteen (18) months to twenty-four (24) months.

The inclusion of the phrase "reasonably available" [in sub-paragraph (3) of Section 100(h)] as to "patents or publications" in this or foreign countries constituting prior art before the invention by the inventor, or more than one year prior to the filing date, introduces into the law an uncertainty as to when a patent or publication is effective prior art. The present Patent Statute provides that if the invention is "patented or described in a printed publication", it is prior art. In view of the many reproduction methods employed today, we favor the deletion of "printed" as proposed, but would favor elimination of the uncertain test that publications be "reasonably available".

One of the modifications embodied in the Secrecy Order sections of the bill [Sections 181 to 188] requires further clarification. Section 184(c) introduces the concept that after a license for foreign filing of an application has been accorded, no additional license is necessary in the filing of amendments, supplements, or divisions when such documents "do not alter the nature of the invention originally disclosed". In many instances the Secrecy Order is not imposed solely by reason of the nature of the invention, but is necessitated by virtue of the disclosure of the relationship of the invention to national security. Similarly, an amendment, supplement, or division could itself disclose new aspects, features, or relationships not altering the nature of the original invention but which disclose separately information detrimental to national security. Therefore, it should be made clear

that an additional license is necessary if the additional documents themselves disclose subject matter detrimental to national security.

The term of a patent at present is seventeen (17) years from the date of issue, so that a Secrecy Order does not affect the length of the term of the patent under existing law. Under Section 154(b) of the bill, the term of the patent is to expire twenty (20) years from the date of filing of the application in the United States. If a patent is to expire from the date of the filing of the patent application in the United States, and as the applicant has no control over the issuance of a Secrecy Order, it would appear equitable that the term of a patent be extended by the period of the delay in the issuance of the patent resulting from the Secrecy Order after a notice of allowability.

The provisions of the bill providing for joinder of inventors [Section 116(b)], the filing of patent applications of owners [Section 111], the correction of inventors [Section 111(e)], and the claim of priority as respects the filing of continuing applications [Section 119(b) and Section 120(a)(4)] are favored as in accord with the Presidential Commission's objectives to simplify procedures and practices in connection with the securing of United States Patents.

The bill does not include provisions on certain recommendations of the Presidential Commission, such as—use restrictions, the finality of a patent invalidity decision by a court, and establishment of an Advisory Commission, which features have been included in other proposed bills, such as the McClellan Bill, S. 1042.

The Bureau of the Budget advises that there is no objection to the presentation of this letter.

Sincerely yours,

R. E. HOLLINGSWORTH, *General Manager.*

GENERAL COUNSEL OF THE DEPARTMENT OF COMMERCE.

Washington, D.C., January 24, 1968.

Hon. JAMES O. EASTLAND,
Chairman, Committee on the Judiciary,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This is in further reply to your request for the views of this Department with respect to S. 2597, a bill "For the promotion of the progress of the useful arts by the general revision of the Patent Laws, title 35 of the United States Code, and for other purposes."

As you know, the President appointed in 1965 a Commission of leading citizens to study ways to improve the patent system. Following a year and a half of intensive deliberations, the Commission issued a Report which identified six fundamental objectives for improving the patent system and offered a plan containing thirty-five recommendations for accomplishing these objectives.

The Patent Reform bill, identified as S. 1042, is based upon and incorporates most of the recommendations of the Presidential Commission. In recommending the Patent Reform bill to the Congress, the President briefly discussed how it would achieve the objectives identified by the Commission.

Since the introduction of S. 1042 in the Senate on February 21, 1967, there have been hearings by the Subcommittee on Patents, Trademarks and Copyrights of the Senate Judiciary Committee, and representatives of the Department of Commerce have discussed the bill at length with members of industry and the bar. In this intercourse on the Patent Reform bill, the private sector has expressed concern with some of the recommendations and has advanced modifications of these recommendations. Some of these modifications, such as those included in S. 2597, have been introduced into the Congress in the form of legislation.

We are willing to consider reasonable modifications of the Patent Reform Act that can satisfy the objectives of the Commission. This statement is intended to indicate which of the proposals contained in S. 2597 we consider to be feasible—if not optimal, which of the proposals of S. 2597 might be modified to become acceptable, and which of the proposals are unacceptable.

Since S. 2597 was submitted as a substitute for S. 1042, the views of the Department on S. 2597 will be presented in the context of the various recommendations of the President's Commission. Technical comments on S. 2597 appear in the appendix to this letter.

Priority systems

A key recommendation of the President's Commission concerns the rule to be applied in determining who is entitled to a patent in instances in which there are competing claims to the same invention.

Under existing law, patents are granted to the first person to complete an invention; and in cases in which there is an issue of priority, this issue is decided in an interference proceeding in the Patent Office or in the courts.

The President's Commission recommended, in lieu of the present "first-to-invent" system of priority, the adoption of a "first-to-file" system of priority. Under such a system, a patent would be issued to the inventor to first file a patent application on his invention. Where there are competing claims to the same invention, priority would be determined solely on the basis of legal filing dates of the applications.

The Commission's recommendation followed from its conclusion that a first-to-file system will provide an effective incentive for applicants to enter the patent system promptly and that it will thereby encourage prompt disclosure of new technology. The Commission also concluded that it is as equitable to grant a patent to the first to file as to the one who wins in interference. The applicant to first file a patent application on his invention, in the words of the Commission, is "more apt to be the inventor who first appreciated the worth of the invention and promptly acted to make the invention available to the public."

The Patent Reform bill, S. 1042, adopts, principally in section 102, the first-to-file rule recommended by the Commission.

S. 2597, on the other hand, retains the existing substantive rule under which patents are awarded to the "first inventor," [section 102(e)] but adopts a procedural rule analogous to the "first-to-file" rule. Under section 137, in operation, a patent would be issued to the first applicant to file an application, with subsequent applications being given the right to provoke an interference procedure,

(1) by making a *prima facie* showing that before the effective filing date of the application for the issued patent, the second applicant or junior party made the invention in this country and has not abandoned, suppressed, or concealed it; and

(2) by offering to present evidence in support of such a showing.

The interference would be carried out under rules and procedures established by the Commissioner of Patents. Significantly, and in our view undesirably, either party to an interference could go back, as at present, an unlimited period of time to prove priority of invention by acts known only to himself and his close associates, without any subsequent diligent activity on his part to make knowledge of the invention available to the public. There would be little incentive for him promptly to enter the patent system.

A corollary of the first-to-invent rule, as set forth in section 102(g) of the present title 35 of the United States Code, is that patents can be declared invalid under section 282(2) after they are issued on the ground that the inventor named in the patent was not the first inventor of the patented invention. This casts a cloud of possible invalidity over every issued patent and in effect permits a prior inventor who chose not to use the patent system for its intended purpose to destroy the rights of a subsequent inventor who entered the patent system promptly and used it for its constitutional purpose.

If priority contests are to be retained in the patent laws, as proposed in S. 2597, this Department strongly urges that there be a time limit imposed on how far back an applicant may go to prove his priority. In this regard, there has been a suggestion that he be limited to an effective date of invention not more than one year prior to his effective filing date, even though he is able to establish an earlier date. The provision of such a time limit, in the context of a modified first-to-file system, would provide a strong incentive to an inventor to enter the patent system within a year of his invention; it would remove the defense of prior inventorship of sections 102(e), 137 and 282(b)(2) of S. 2597 for those more diligent in protecting their rights under the patent system. This would also simplify the interference procedure by minimizing proofs going back more than a year before the effective filing date.

In addition to permitting applicants to contest the issue of prior inventorship, S. 2597 also retains, in section 104, the discrimination in the existing law against foreigners with regard to proving acts in foreign countries to establish a date of invention. Not only does this provision unfairly discriminate against foreign applicants, but it has been a source of considerable difficulty in our negotiations

for international patent cooperation. Therefore, if a system such as the modified first-to-file system discussed above, which permits limited priority contests, is adopted, the Department would strongly urge that it provide equal treatment for foreign applicants.

In summary, the Department opposes enactment of the first-to-invent rule as embodied in S. 2597. If this rule were modified to include or impose a reasonably short time limit on proving priority—no more than one year prior to the effective filing date—it would move more in the direction of the first-to-file system of S. 1042, while perhaps affording more flexibility for inventors than would exist under a strict first-to-file rule.

Grace period

Under existing law, an applicant has a one-year "absolute grace period" following publication, use or sale of the invention by anyone in which to file a patent application on the invention [§ 102(b)].

The President's Commission recommended that this grace period be eliminated and that instead applicants be permitted to file "preliminary applications" to secure an early legal filing date for the invention. This recommendation would be implemented in the Patent Reform bill in section 102, which eliminates the grace period, and sections 111 and 120, which permit the filing of preliminary applications.

On May 3, 1967, Senator Long of Missouri introduced Amendment No. 182 to the Patent Reform bill, which in effect would establish a six-month personal grace period to the filing of a complete patent application during which public use, sale, or public disclosure of an invention by or on behalf of an applicant would not bar the issuance of a patent on the application. This six-month "personal grace period" would not be incompatible with the strict first-to-file system of the Patent Reform bill and, in the view of this Department, might be consistent with the bill's purpose if the strict first-to-file rule is adopted.

On the other hand, if a modified first-to-file rule with a time period provision as suggested above were to be adopted, it would not be necessary to eliminate the one-year absolute grace period of existing law. In fact, a one-year absolute grace period would be consistent with a modified first-to-file rule under which an inventor would be permitted to establish a priority date up to one year prior to his effective filing date for interference purposes.

Universal prior art

Under existing law (35 U.S.C. 102(a) and (b)), prior art—and by this term is meant prior technical developments which are considered in determining whether a patent should be granted—includes prior knowledge, use or sale of an invention "in this country" and patenting or disclosure of the invention in a printed publication "in this or a foreign country." [§§ 102(a) and (b)].

The President's Commission recommended that this geographic distinction in the definition of prior art be removed and that prior art be defined as including "information known to the public by means of disclosure in tangible form or by use or placing on sale, *anywhere in the world*, prior to the effective filing date of the application (emphasis added). This definition of prior art is known as universal prior art. The Patent Reform bill in section 102 adopts this universal standard of prior art.

S. 2597, on the other hand, would retain in section 100(h) the geographic distinctions present in the existing law.

The Commission's recommendation on universal prior art followed from the conclusion that adoption of such a standard by the United States would be an important step toward promoting acceptance of a common definition of prior art to be applied by the patent offices of other nations. Critics have pointed out that adoption of universal prior art as a basis of rejection would increase the cost of patentability determinations and patent prosecution and litigation by including a body of non-documented prior art, which under existing law is not prior art in this country. They also point out that, while the trend is toward adopting a universal standard, the exact standard has not yet been precisely defined.

In our opinion, the trend is definitely in the direction of a universal prior art standard. The Council of Europe Convention for the Unification of Certain Points of Substantive Law on Patents for Invention, the proposed EEC patent system, the Nordic patent system, and the Model Law for Developing Countries written by BIRPI, would establish a universal prior art standard. If the present geographical distinctions on prior art are retained in the U.S. law, it would still therefore be quite important for this country to work with the other countries in

the world in attempting to define a universal standard of prior art which all countries ultimately could agree to adopt.

Effective date of a U.S. patent

Section 102(e) of existing law provides that a U.S. patent constitutes a prior art reference as of the date it was "filed in the United States." This section codified the rule in the case of *Alexander Milburn Co. v. Davis-Bournonville Co.*, 270 U.S. 390 (1926). Under section 119 of existing title 35, it is provided, pursuant to the international patent convention known as the Paris Union, that an applicant of a U.S. patent application may obtain the benefit of a prior filed foreign application provided he files the U.S. application within a year of the earliest foreign filing and complies with various procedural requirements. It is provided that the U.S. application "would have the same effect as the same application would have if filed in this country on the date on which the application for patent for the same invention was first filed in such foreign country."

The prevailing interpretation of these statutory provisions is that U.S. patents based on prior filed foreign applications constitute prior art for subject matter which they disclose but do not claim, only as of the actual United States filing date and not the foreign filing date. See *In re Hilmer*, 359 F. 2d. 859, 149 USPQ 480, (CCPA 1966) and *Eli Lilly and Co. v. Brenner*, 375 F. 2d. 599, 153 USPQ 95 (App. D.C. 1967).

The Patent Reform bill, in section 102, would provide that a U.S. patent constitutes prior art as of its "effective filing date," just the same when this is the date of filing of an earlier foreign application as is now the case when it is an earlier filed U.S. application. Such a provision, affording evenhanded treatment of all applicants, is considered to be important to meaningful international cooperation in the patent area. If the distinction of S. 2597 were adopted, there would be instances in which the Patent Office would be forced to issue two patents on patentably indistinct inventions, since technically neither of the patents would be "prior art" against the other. It seems unreasonable, regardless of interpretation of present statutory language, to grant to the foreign applicant a U.S. patent based on treaty rights, and then to grant to another a patent which dominates features described in the foreign and U.S. applications of the foreign applicant, in cases where the dominating patentee cannot prove his right to a date earlier than the foreign filing date. Accordingly, we oppose the enactment of a rule such as is included in section 100(h) (1) of S. 2597 under which patents are considered prior art only on the basis of their U.S. filing dates, and their foreign filing dates are ignored in this consideration.

RECOMMENDATION NO. II: PRELIMINARY APPLICATIONS

As explained above in connection with the discussion of the grace period, the President's Commission recommended in the Patent Reform bill the establishment of a system whereby an applicant could obtain an early legal filing date for his invention by filing a preliminary application. Such a preliminary application would be very desirable if a first-to-file system is adopted and if the present grace period is eliminated. On the other hand, if a modified first-to-file rule were to be enacted and a grace period retained, there would not be the same necessity to provide for preliminary applications. However, even if preliminary applications were eliminated because of the adoption of a modified first-to-file rule, it has been suggested that it might be desirable to make complete applications more flexible by providing that applicants, for a period of one year, could delay submission of all but \$10 of the filing fee, claims, and formal patent drawings. This flexibility could provide a savings for applicants who decided at the end of the year to file an international application under the proposed Patent Cooperation Treaty or to abandon or to publish the application. Therefore, if the Committee were to recommend a modified first-to-file system, it may wish to consider providing such flexibility for complete applications.

RECOMMENDATION NO. III: EXCEPTIONS TO PRIOR ART

The President's Commission recognized the need for "temporary protection" for an invention displayed at an official international exhibition and further recommended that an authorized public disclosure of an invention derived from an inventor or his assignee shall not constitute prior art against the inventor provided he files a complete application within six months of an unauthorized public disclosure.

The provision for a six-month personal grace period contained in Senator Long's Amendment No. 182 (noted above), or the provision of a one-year absolute grace period of section 100(h) of S. 2597, would obviate the need for specific exemptions from prior art as recommended by the President's Commission, and they are omitted from S. 2597.

RECOMMENDATION NO. IV: CLASSES OF PATENTABLE SUBJECT MATTER

Section 106 of S. 1042 implements the recommendation of the President's Commission that computer programs be specifically excluded from patentable subject matter. The Commission's recommendation followed from its view that searches would not be feasible in this area, and that, without such a search, the patenting of computer programs would amount to mere registration. The Commission further noted that the "creation of programs has undergone substantial and satisfactory growth in the absence of patent protection and that copyright protection for programs is presently available."

S. 2597 contains no similar or analogous provision.

Although there have been no specific judicial determinations as to whether computer programming is or is not patentable subject matter, the Patent Office has taken the view that computer programs are not patentable under present law, and no patent has been issued on a computer program *per se*. Section 106 of the bill would codify this interpretation by providing that computer programs are not patentable. It is our opinion, however, that there are some difficulties involved in finding an adequate definition for computer programs and that it may be premature to enact legislation in this area at the present time. If section 106 of the Patent Reform bill were to be excluded from any patent legislation which the Committee recommended, we would urge that the legislative history reflect that the omission was not intended to pass judgment on the question of patentability of computer programs.

RECOMMENDATION NO. V: ASSIGNEE FILING AND JOINDER OF INVENTORS

Assignee Filing

Under existing law, an application for patent must be made by the inventor himself except under special circumstances, for example where he is deceased or otherwise unavailable; and an application must be signed by the inventor. To simplify filing for patents resulting from organized and cooperative research and development, the Commission recommended that the owners of inventions, as well as the inventors themselves, be permitted to file patent applications. This recommendation is adopted in S. 1042 in section 111(a).

Prior to publication of the application, on the other hand, section 115(b) of S. 1042 requires that a declaration or oath of originality be made by the inventor and that a specific assignment be recorded in the Patent Office.

S. 2597 adopts in section 111 a provision permitting owners as well as inventors to file patent applications; however, this provision differs from that recommended by the Commission in that it does not require, during the pendency of the application, a declaration or oath of originality by the inventor or a specific assignment of the invention. Sections 111(a) and 115 of S. 2597 merely require, in applications filed by the owner of the invention, a declaration of originality by the owner and a statement of facts supporting the allegation of ownership of the invention. S. 2597 also permits, in section 111(b), applications to be filed by an agent of the inventor or owner "provided the application is ratified by the signature of the inventor or owner within six months."

While the S. 2597 approach would simplify the obtaining of patents by owners or assignees, we question whether it provides sufficient protection for the rights of the inventors. S. 2597 does include as a safeguard the requirement that the inventor be served by first class mail with a copy of an application filed by an owner within ten days after filing of the application. We believe, however, that this places an unfair burden upon the inventor, since it compels him to take positive action to overcome assertion by another of title to his invention. Moreover, the absence of an oath by the inventor would foreclose an important avenue for learning of prior public uses and other potential statutory bars. In addition, the absence of a specific assignment from the inventor to the owner-applicant could lead to uncertainties as to the right of the applicant to the patent. For these reasons, the Department strongly opposes the assignee filing provisions of S. 2597 in favor of those of S. 1042.

Joinder of inventors

Section 116 of present title 35 provides that "when an invention is made by two or more persons jointly, they shall apply for patent jointly." Patents typically contain a number of claims, each defining the invention in varying terms. The existing section 116 has been interpreted as requiring each person named as a joint inventor to be a joint inventor with respect to each claim in an application. This technical requirement gives rise to numerous problems. Both S. 1042 [§ 116(b)] and S. 2597 [§ 116(b)] would remove this technical requirement by providing that "in an application for patent for a joint invention, it shall not be necessary for each person named as a joint inventor to be a joint inventor of the invention asserted in each claim." We support this provision.

Both S. 1042 [§ 111(d)] and S. 2597 [§ 111(e)] would simplify the correction of incorrectly named inventors by providing that "omission of an inventor's name or inclusion of the name of one not an inventor, without deceptive intent, may be corrected at any time, in accordance with regulations established by the Commissioner." [See also § 256 of S. 1042 and S. 2597.]

Again we support such a provision. It removes unnecessary technical problems in existing law.

RECOMMENDATION NO. VI: CLAIM FOR PRIORITY DATE

Under section 119 of present title 35, a claim for priority based on an earlier foreign filed application must be made in the U.S. application before the U.S. patent is granted or at such time during the pendency of the U.S. application as required by the Commissioner, but not earlier than six months after the filing of the U.S. application. Under section 120, a claim for the priority of the filing date of an earlier filed U.S. application may be made at any time during the pendency of the later filed application.

The President's Commission recommended that "any claim for a priority date based on an earlier U.S. or foreign application must be made at the time a complete application is filed." The Patent Reform bill adopts this recommendation in sections 119(b), 120(a)(4), and 120(b)(4). S. 2597 in part adopts this recommendation by requiring that a claim for foreign priority must be made at the time of filing, but "amendment of such claim may be made during examination or reexamination of the application" [§ 119(b)]. S. 2597 requires that a claim for priority based on an earlier filed U.S. application must be made "at the time of filing the later application, or by amendment thereof" [§ 120(a)(4)].

We support the proposal of the President's Commission regarding the time for claiming a priority date since such claim provides a basis for determining what references may be applied as prior art against an application and, with regard to a claim for priority based on an earlier filed U.S. application, affects the term of the patent. However, where the later application no longer claims the subject matter of the earlier application or where the applicant is able to show due cause for failure to assert a priority claim at the time of filing, the Committee may wish to consider including provisions for amending a claim of priority.

RECOMMENDATION NO. VII: PUBLICATION

Patent applications, under existing law, are retained in confidence by the Patent Office until a patent is granted, at which time publication of the invention occurs. The Commission recommended that pending applications, regardless of their status, be published within eighteen to twenty-four months of their earliest effective filing date, or earlier if the case were found allowable, or upon the applicant's request.

The recommendations of the Commission are adopted in S. 1042 in sections 123 and 151.

S. 2597, on the other hand, would permit publication only after an application was found to be allowable by the Patent Office, following an examination, or earlier at the request of the applicant [§§ 123, 151].

We support the proposal of the President's Commission for early publication of pending patent applications. As the Commission noted, early publication would not only prevent needless duplication and promote technological advances, but it would also advise members of the public of their potential liability.

The question of whether there should be automatic publication of all applications within eighteen to twenty-four months of their filing date is not critical in view of the projected work schedules of the Patent Office. Under these schedules, a large majority of applications can be fully examined and either allowed

or finally rejected within twenty-four months after their filing dates. However, we regard it as quite important that an application be published upon the filing of an appeal or the declaration of an interference since these proceedings are frequently quite lengthy and could unduly delay publication of the application involved.

If the automatic publication provisions of S. 1042 were eliminated as proposed in S. 2597, it would be quite important, in our view, that there be mandatory publication of applications upon appeal and the declaration of an interference.

RECOMMENDATION NO. VIII: CONTINUING APPLICATIONS

Under existing law, a continuation application (i.e., an application containing the same technical subject matter as a previous application) must be filed in order to obtain the date of the previous application "before the patenting or abandonment of or termination of proceedings on" the earlier filed application (see section 120). It is also provided that a "continuation application" may obtain the benefit of the filing date of an earlier filed application and, in turn, may be "similarly entitled to the benefit of the filing date" of still another earlier filed application. The President's Commission recommended first that a continuation application must be filed before the abandonment or allowance of, or an appeal in, the earlier filed application, and second that the benefit of the filing date for an application may not be preserved through a chain of subsequently filed applications. S. 1042 adopts in section 120(b) the Commission's recommendation.

S. 2597 would retain existing law with respect to the time of filing a continuation application (i.e., merely before the end of prosecution of the earlier filed application) and also would specifically permit the preservation of the filing date through a chain of any length of consecutively filed continuation applications [§ 120(a)].

The Commission's recommendation would provide assurance that an applicant could not delay unduly the issuance of a patent by the filing of a chain of continuation applications. On the other hand, the provision under which a patent would expire twenty years from the earliest U.S. filing date (rather than seventeen years from the issue date as at present, see Recommendation No. XVIII) would serve to discourage such delaying tactics. Thus, if the twenty-year term provision is adopted, implementation of the Commission's recommendation with regard to continuing applications becomes less important.

RECOMMENDATION NO. IX: STANDBY OPTIONAL DEFERRED EXAMINATION

The President's Commission recommended that legislation be enacted to give the Secretary of Commerce standby authority to institute a system of deferred examination. Under the recommended system, an application would be examined only upon the request of the applicant or third parties during the first five years following its date of filing. The Commission recommended that such a system be established by the Secretary of Commerce only if necessary in view of an increasing backlog.

The Patent Reform bill in sections 191-194 would provide authority to the Secretary of Commerce to institute a system of deferred examination if the Secretary determined such action to be in the public interest.

In testifying on these sections, the Department of Commerce has expressed the view that it would not institute a system at the present time even if the authority were provided, and that if the present workload schedules and plans for international cooperation come into effect, the deferred examination system would not be necessary any time in the foreseeable future.

There are no provisions in S. 2597 for a deferred examination system. Although standby authority as provided in S. 1042 would be desirable, in our view, the matter is not of major significance at this time in view of our anticipated work schedules.

RECOMMENDATION NO. X: BURDEN OF PERSUASION

There is at present no specific provision in title 35 as to whether an applicant has the burden of persuading the Patent Office that his invention is patentable. However, the Commissioner of Patents has instructed the examining corps that "any application covering an invention of doubtful patentability should not be allowed, unless and until such doubt is removed in the course of examination and

prosecution, since otherwise the resultant patent would not justify the statutory presumption of validity, nor would it 'strictly adhere' to the requirement laid down by Congress in the 1952 act as interpreted by the Supreme Court." The Commissioner was referring to the recent Supreme Court decisions, for example, *Graham v. John Deere Co.*, *Calmar Inc. v. Cook Chemical Co.*, and *Colgate-Palmolive Co. v. Cook Chemical Co.*, 383 U.S. 1 (1966), which gave support to the position of the Presidential Commission in recommending that "an applicant in his application for patent shall have the burden of persuading the Patent Office that a claim is patentable." This standard is written into the Patent Reform Bill in section 137.

S. 2597 contains no similar provision.

Although we feel that the law presently places the burden of persuasion on the applicant, the Department would favor a statutory codification of this rule.

RECOMMENDATION NO. XI: CITATION PERIOD

Because patent applications are now retained in confidence by the Patent Office until the issuance of a patent, there can be no formal procedure permitting third parties to know about pending applications and submit to the Office reasons why a patent should not be issued. The President's Commission recommended the establishment of a citation period prior to issuance of the patent, which would follow the publication of a pending application found allowable. Under this procedure, third parties would be permitted to cite prior patents and publications relevant to the patentability of the invention, to institute public use proceedings to uncover undocumented prior art, and to oppose the issuance of the patent on the ground that the inventor named in the application derived the invention from someone else. S. 1042 incorporates this recommendation, principally in sections 136 and 151.

S. 2597 provides almost identical provisions with the addition of another ground for opposition, namely that the inventor named in the application was not the first inventor of the invention [§§ 136, 151]. This latter ground follows from the provision in S. 2597 for limited priority contests.

This Department favors the citation period recommendation; however, if a modified first-to-file system of priority were to be adopted, we would favor modification of the additional ground for opposition included in section 136 (d) (3) of S. 2597. To be consistent with the modified first-to-file principle, we would not permit junior party applicants to raise the issue of prior inventorship under section 136(d) (3). This modification would insure that patents would always issue to the first applicant to file and that any priority contest for patent rights would be carried out under section 137.

RECOMMENDATION NO. XIII: PRESUMPTION OF CORRECTNESS

There is no provision in existing title 35 regarding the weight to be given a Patent Office decision denying a patent claim when that decision is appealed. The United States Court of Appeals for the District of Columbia stated in *Reynolds v. Agnides*, 148 U.S.P.Q. 245, that a "doubt as to patentability is to be resolved in favor of the correctness of administrative action."

The President's Commission felt this should be the rule in all review of Patent Office decisions and recommended that "a Patent Office decision refusing a claim be given a presumption of correctness, and shall not be reversed unless clearly erroneous."

The Patent Reform bill, in adopting the Commission's recommendation, provides that "Patent Office decisions shall be given a presumption of correctness" and "shall be upheld unless . . . without substantial basis or not in accordance with law" [section 148].

S. 2597 has no similar provision.

In our view, Patent Office decisions should be given a presumption of correctness and we support this recommendation of the President's Commission; however, we do not regard the latter portion of this provision, which requires that Patent Office decisions be upheld unless without substantial basis or not in accordance with law, to be necessary.

RECOMMENDATION NO. XIV: REVIEW BY COURT OF APPEALS

Under existing law an applicant dissatisfied with a decision of the Patent Office may either (1) appeal on the record to the Court of Customs and Patent Appeals

[§ 141] and thence to the Supreme Court by a writ of certiorari or (2) file a civil action against the Commissioner of Patents in the District Court for the District of Columbia [§ 145] with appeal to the Court of Appeals for the District of Columbia and review by the Supreme Court by writ of certiorari.

The President's Commission recommended that "Either the applicant or the Patent Office may appeal from a decision of the Court of Customs and Patent Appeals to the United States Court of Appeals for the District of Columbia Circuit, and from a decision of the latter court either may petition the Supreme Court for a writ of certiorari."

The Patent Reform bill follows the recommendation of the Commission in section 147 providing that any party or the Commissioner of Patents dissatisfied with the decision of the Court of Customs and Patent Appeals may seek a review by requesting permission of the U.S. Court of Appeals for the District of Columbia Circuit to allow an appeal.

S. 2597 would consolidate the review of all Patent Office decisions in the Court of Customs and Patent Appeals which would be increased by four judges making a total of nine sitting on the Court [28 U.S.C. 211 as would be amended by Sec. 2(a) of S. 2597]. The Court would have a trial part for civil actions under section 145 and an appellate part for appeals from the trial part and appeals from the Patent Office under section 141. The judges of the Court of Customs and Patent Appeals would "sit on the Court and its divisions in such order and at such time as the Court directs" [28 U.S.C. 215 as would be amended by Sec. 2(a) of S. 2597]. Decisions of the Court might be reviewed by the Supreme Court by writ of certiorari. In recommending Court of Appeals review of decisions of the Court of Customs and Patent Appeals, the Commission was endeavoring to eliminate conflicting decisions on points of substantive law and to achieve uniform standards of patentability. The Commission chose the Court of Appeals as the reviewing court because it is a court of general jurisdiction which is exposed to a broad spectrum of cases involving many fields of law.

On the other hand, S. 2597 would provide for direct review of Patent Office decisions solely by a special court of limited jurisdiction. S. 2597 would create a unique federal court in which there would be no clear line between the appellate body and the lower court and in which the judges of the same court could presumably review each others' decisions. In commenting on a similar arrangement provided for by S. 1691, Assistant Attorney General Donald F. Turner stated that the "proposal would further divorce the trial of patent cases from a trial of other types of lawsuit, and that such separation and specialization seems, on balance, a step in the wrong direction." We feel that this comment is equally applicable to the appellate review plan of S. 2597 and therefore strongly oppose its enactment.

RECOMMENDATION NO. XV: CANCELLATION

Under existing law, the United States Attorney General is the only person who can institute a suit to cancel a patent. *Walker Process Equipment Inc. v. Food Machinery & Chemical Corp.* 382 U.S. 172 (1965). There is no authority for the cancellation of patent claims by the Patent Office except as a result of a decision in an interference proceeding adverse to the patentee under section 135.

The President's Commission recommended that the Patent Office, upon receiving a relatively high fee, consider prior art cited by the public within a three year period after issuance of the patent. The patent owner would have an opportunity to rebut an adverse determination of patentability and to narrow the scope of the claim. A final determination adverse to the patentee would result in the cancellation of the claim. Anyone unsuccessfully seeking cancellation of a claim would be required to pay the patent owner's reasonable cost of defending such claims, including attorney's fees.

The Patent Reform bill adopts the Commission's recommendation [§ 257]. The person petitioning the Patent Office to obtain a determination that a claim of a patent is invalid must pay a fee of \$500 and may be liable for attorney's fees up to \$1000.

S. 2597 has no provision for cancellation of a claim from an issued patent.

Although the citation provisions of section 136 go far to protect the public interest, the Department supports the provision of a supplementary period after the issuance of a patent by which the public could question the validity of the patent.

RECOMMENDATION XVI: REISSUE

Under existing law a patentee may apply for a "reissue patent" to correct errors in the original patent. The scope of the claims in the original patent may be broad-

ened if the reissued patent is "applied for within two years from the grant of the original patent." There is a provision for the intervening rights of third parties whose activities prior to the reissue were not infringements (35 U.S.C. 252).

The President's Commission recommended that "a claim shall not be broadened in a reissue application." The Patent Reform bill adopts this recommendation in section 251(c).

On the other hand, S. 2597 would permit the broadening of a claim but would change the two year period to one year. [§ 251(c)]. S. 2597 would also retain the existing substantive law on the protection of the intervening rights of third parties [§ 252(b)].

By reducing the period during which a broadened reissue could be filed, S. 2597 represents a not unreasonable compromise between S. 1042 and existing law. If the reissue provisions of S. 2597 are adopted, however, we would urge that section 252(b) be amended to provide for the continued practice of an invention without the payment of royalties where substantial preparations for such practice were made.

RECOMMENDATION NO. XVII: INTERIM LIABILITY

Under existing law, liability for the infringement of a patent begins on the day it is granted. In view of the recommended publication of patent applications prior to the issuance of a patent [Recommendation No. VII], the Commission recommended that the owner of an invention be protected against the unauthorized practice of the invention by third parties after publication of the application but prior to the grant of a patent. Accordingly, the Commission recommended that the owner of a patent, under certain circumstances, be permitted to collect damages for the unauthorized practice of the invention by third parties during the interim period after publication of an application but prior to the grant of a patent.

The Patent Reform bill adopts the Commission's recommendation and provides in section 273 that a patentee after issuance of a patent may obtain damages for the unauthorized practice of the patented invention during the interim period. S. 1042 limits these damages to reasonable royalties and provides that "no injunction" may be had with respect to the subsequent use or sale of items made prior to the patent grant for which the patentee has elected to obtain such damages.

Under the interim liability provisions of S. 2597, an applicant need not have an allowed claim in a published application to obtain reasonable royalties for its infringement so long as it also appears in the issued patent. In addition, the patentee does not have to elect between damages or an injunction until he actually brings suit. Under the Patent Reform bill, the applicant elects to recover damages by notifying an alleged infringer of his unauthorized practice of the invention.

Although there may be a slightly greater opportunity for harassment under the interim liability provisions of S. 2597, the opportunity for an applicant to request early publication and obtain reasonable royalties for the unauthorized use of the invention defined by any claims which also appear in the issued patent would encourage prompt publication. Accordingly, we believe that the interim liability provisions of S. 2597 merit careful study.

RECOMMENDATION NO. XVIII: TERM OF PATENT

Under existing law, the term of a patent is seventeen years from the date the patent is granted.

The Commission recommended that "the term of a patent shall expire twenty years after its earliest effective U.S. filing date."

This recommendation is adopted in section 154(b) of both the Patent Reform bill and S. 2597. The Department considers it extremely important that the provision of a twenty-year term from filing be included in any legislation enacted by the Congress.

RECOMMENDATION NO. XIX: SECRECY ORDER

Existing Title 35 provides in section 181 that the issuance of a patent may be delayed whenever publication or disclosure by the grant of a patent will be "detrimental to the national security." Since the term of a patent under existing law is measured from the date the patent is granted, the term is not shortened by a secrecy order. In addition, section 183 provides that any applicant whose patent is delayed may recover compensation for the damage caused by the order of secrecy.

The Commission, in view of its previous recommendation that the term of the patent be measured from its U.S. filing date rather than its issue date, recom-

mended that "the term of a patent, whose issuance has been delayed by reason of the application being placed under secrecy order, shall be extended for a period equal to the delay in issuance of the patent after notice of allowability."

The Patent Reform bill adopts in section 154(c) the recommendation of the Commission and also retains section 183 of existing law.

Under S. 2597 the term of a patent delayed by an order of secrecy would not be extended to compensate for the delay. Section 183 of the existing law would be retained in S. 2597.

Although the provisions of section 183 would be operative under the provisions of both S. 1042 and S. 2597, it would be more equitable to extend the term of the patent for a delay in issuance caused by the needs of the Government which was beyond the control of the applicant. Thus, in the view of the Department, the term extending provision of section 154(c) of S. 1042 should be included along with the twenty-year term provision.

RECOMMENDATION NO. XX: TERMINAL DISCLAIMER

Under existing law, a patentee or applicant may disclaim the entire term or any terminal part of the term of a patent granted or to be granted. A holding of double patenting (i.e., that an applicant is attempting to obtain or has obtained two patents on the "same invention") can be overcome in some circumstances by a "terminal disclaimer" which results in both patents expiring at the same time.

The President's Commission recommended that "the filing of a terminal disclaimer shall have no effect in overcoming a holding of double patenting." The Patent Reform bill adopts the recommendation of the President's Commission and provides that terminal disclaimer shall have "no effect in the determination of the patentability or validity of a claim." [§ 253(c)]

S. 2597, on the other hand, would provide that a patent may not be refused or declared invalid solely because of the existence of one or more other patents where the "patents will expire on the same date as a result of filing on the same date or as a result of a terminal disclaimer . . . so long as the right to sue for infringement of said patents is maintained in the same legal entity" [§§ 131 and 282(b)(2)].

Adoption of the provisions of S. 2597 on terminal disclaimer, in conjunction with the provisions permitting the filing of an unlimited chain of continuing applications, could present substantial problems. For instance, a member of the public, noting the first patent issued from such a chain, might make a substantial investment in introducing into commerce a development which did not infringe the first patent and later find this development to be an infringement of one of the subsequently issued patents in the chain. Accordingly, the Department opposes the provisions in S. 2597 by which terminal disclaimer would be effective in overcoming the holding of double patenting and supports the provisions of S. 1042 which would introduce the opposite result.

RECOMMENDATION NO. XXI: IMPORTATION

Under existing law, the importation of a product made outside the United States by a process patented in the United States is not an act of infringement. The patentee's only remedy is to seek exclusion of the product under the Tariff Act of 1930 on the ground that its importation will tend to cause injury to an "efficiently and economically operated" domestic industry [19 U.S.C. 1337(a)].

The Commission concluded, however, because of these requirements that the patent owner had little prospect for success. Accordingly, the Commission recommended that "the importation into the United States of a product made abroad by a process patented in the United States shall constitute an act of infringement."

The importation problem is particularly relevant in cases where patent protection for the process is not available in the country of origin. To alleviate this problem, section 271(b) of the Patent Reform bill would adopt the Commission's recommendation but would limit its application to those situations where "patent protection for the process is not available" in the country in which the product was made. We would recommend, however that the proviso be amended to read "patent protection for that general class of process is not available" to insure that it was not intended to apply to situations where the particular process in question was merely found to be unpatentable.

Both S. 2597 and Amendment No. 184 to S. 1042 (introduced by Senator Long of Missouri) adopt the importation recommendation without the proviso; that

is, they would outlaw importation of a product made abroad by a process patented in the United States whether or not process patent protection could have been secured abroad. The Department strongly opposes the broad importation provision since there has been no showing of a compelling need for such a provision. Moreover, a broad importation provision would appear to pose an unacceptable burden to importers who would be faced with the costly task of determining by what process the products they imported were made, the facts being unavailable in the United States. Without the limitation of the proviso, the proposed legislation would assume a serious threat to the public interest.

RECOMMENDATION NO. XXII: PATENT RIGHT TRANSFERABILITY

The President's Commission believed it necessary, for the purposes of assignments and licenses, to define in explicit statutory language the nature of the patent grant presently recognized under the patent statute and by decisional law. To accomplish this end, the Commission recommended approval of field of use restrictions in license provisions and clarification of the rights of the patent owner by making clear that the "rule of reason" should constitute the guideline for determining patent misuse.

The Patent Reform bill does not contain any provisions for this purpose; however, Amendment No. 183 to S. 1042 would adopt the Commission's recommendation verbatim.

S. 2597 would also adopt the Commission's recommendation and includes a section identical to Amendment No. 183. Section 263(a) of S. 2597 would permit patentees to license any part of the field of use to which the subject matter of the claims of a patent are applicable. This provision might well be construed to legitimate the use of any field-of-use restriction whatever. It would be highly objectionable because field-of-use restrictions in some contexts have a severe and unjustifiably adverse effect on competition.

Proposed section 263(b) would permit patentees to impose such licensing conditions as would, in the words of the proposal, secure to the patentee the full benefit of the invention and patent grant. The sweep of this language, evidently derived from the 1926 decision in *United States v. General Electric Company*, 272 U.S. 476 (1926), is so broad that it is meaningless as a guide for action. Any restriction imposed by a patentee, unless the patentee is irrational, is imposed for the purpose of making more money. Taken literally, the language of proposed section 263(b) would make lawful price-fixing, tie-in sales and virtually every other form of misuse or abuse of patents that the courts have condemned in the past. We regard this provision as an invitation for a protracted course of litigation to test its interpretation. For these reasons, the Department strongly opposes enactment of section 263 of S. 2597.

RECOMMENDATION NO. XXIII: IN REM INVALIDITY

Under existing law, a court decision holding a patent claim invalid does not necessarily preclude later action based on the infringement of the claim.

Adopting the Commission's recommendation for *In rem* invalidity, the Patent Reform bill provides that a final federal judicial determination "limiting the scope of a claim or holding it to be invalid, shall constitute an estoppel" against the patentee, and further provides that a court may order cancellation from the patent of any claim finally held invalid [§ 294].

S. 2597 has no comparable provision.

The Department is in complete agreement with the reasoning of the Commission that once a patentee has had his day in court, he should not be allowed to harass others on the basis of an invalid claim. Thus, we support the estoppel and cancellation provisions of S. 1042.

RECOMMENDATION NO. XXIV: CIVIL COMMISSIONERS

The Commission recommended that the offices of "Civil Commissioner" be created in those United States District Courts where justified by the volume of patent litigation.

The Patent Reform bill adopts the Commission's recommendation [28 U.S.C. 757 as would be added by Sec. 3(a) of S. 1042].

S. 2597 has no provision for Civil Commissioners.

The Commission felt the provision of Civil Commissioners should help to bring about more effective utilization of the discovery procedures of the Federal Rules

of Civil Procedure. Of course the problem is not unique to patent cases and the Committee may find it preferable to consider this issue separately in the context of all litigation in the federal courts.

RECOMMENDATION NO. XXVI: STATUTORY ADVISORY COUNCIL

The President's Commission recommended the establishment of a Statutory Advisory Council comprised of members selected to represent the principal areas served by the patent system. The Council would advise the Secretary of Commerce of its evaluation of the current health of the patent system, the quality of the patents being issued, and the effectiveness of any internal patent quality control program then in operation.

The Patent Reform bill adopts the recommendation of the Commission in section 15.

S. 2597 includes no such provisions for the establishment of an Advisory Council.

Although such an advisory body can be created administratively as well as by statute, a statutory basis would, in our view, enhance the prestige and effectiveness of the body.

RECOMMENDATION NO. XXVII: PATENT OFFICE FINANCING

Under the existing law, patent fees are established by statute. Increases in the fees to maintain a reasonable relationship between cost and expenditures can only be obtained through legislative action.

The Commission concluded that any long-term fixed relationship between fees received and office expenditures could not be maintained without continuing and prompt legislative adjustments. Accordingly, the Commission recommended that fees be set by regulation with Congress specifying a desired rate of recovery.

S. 1042 would adopt the recommendation by providing that "the Commissioner shall prescribe by regulation the fees to be paid in connection with the filing and examination of patent applications, the issuance of patents and other matters," designed to effect an overall recovery from sixty-five to seventy-five percent of the cost of operation of the Patent Office [§ 41(a)].

S. 2597 would continue to set patent fees by statute and is virtually identical to existing law.

The Department favors the added flexibility which would be given to the Patent Office in shaping its programs by the enactment of legislation authorizing the Commissioner to establish fees.

RECOMMENDATION NO. XXIX: CLASSIFICATION AND INFORMATION RETRIEVAL

The patent Office presently has several programs underway to automate the searching of patent applications. These programs are experimental in nature and are designed to develop methods of effective information storage and retrieval.

The President's Commission, to accelerate the attainment of such systems, recommended a program to aid in the search, storage, and retrieval of new technology. This recommendation is embodied both in S. 1042 and S. 2597. Under these bills "the Commissioner shall conduct a program of research and development to improve and expedite the handling, classification, storage, and retrieval of patents and other scientific and technical information." [§ 12(a) of both bills].

The Department favors enactment of the provision for the development of an effective information storage and retrieval program.

In addition to the changes previously mentioned, S. 2597 would also make a number of changes in existing law unrelated to the recommendations of the President's Commission. These changes will be considered in the order in which they appear in S. 2597.

Chapter 3 of S. 2597: Practice before the Patent Office

Under existing law and section 31 of S. 1042, both "agents" (i.e., not a member of any bar) and attorneys at law, upon showing they possess the necessary qualifications, may be recognized to represent applicants before the Patent Office.

S. 2597 would provide in section 31 that "only members of the bar of a State, territory, District, Commonwealth or Possession of the United States may be recognized as representatives of applicants, or practice before the Patent Office" with an exception for those agents previously recognized.

Under S. 2597, the number of persons registered to practice before the Patent Office, a specialty in which there is presently no over-supply of qualified people,

would be further reduced. Absent a compelling need for such a change, the Department would be opposed to the enactment of such a provision.

Chapter 10 of S. 2597: Patentability of inventions
Utility

Section 101 of the existing law provides that an invention must be "useful" to be patentable. There is no definition of the term "useful" in the statute. The Supreme Court has held that inventions of chemical compounds not having any known or disclosed use except in further research to discover possible usefulness do not satisfy the "useful" requirement of section 101. [See *Brenner v. Manson*, 383 U.S. 519 (1966)]

S. 2597 provides in section 100(h) that "the term 'useful' shall include, but shall not be limited to, utility in agriculture, commerce, industry, health, or research."

The thrust of the definition of the term "useful" contained in S. 2597 would be to ease the requirement for utility of the existing law. The Department opposes the enactment of any provision by which the value of the disclosure given to the public in exchange for the patent monopoly would be reduced, or by which patents would be granted on products for which there is no presently known practical use. In addition, we believe that the section is vague. It might even be construed as overruling *Brenner v. Manson*, which could raise constitutional questions.

Unobviousness

Under existing law, section 103 provides that a patent may not be obtained if the differences between the invention sought to be patented and the prior art are such that the invention would have been obvious at the time it was made to a person having ordinary skill in the relevant art.

S. 1042 would provide that no patent could be obtained if the differences between the invention sought to be patented and the prior art were obvious "on or before the effective filing date of the application," rather than at the time the invention was made [§ 103]. This change is required by the first-to-file system of priority adopted in the Patent Reform bill.

Section 103 of S. 2597 would provide that no patent could be obtained if the differences between the invention sought to be patented and the prior art were obvious at "the time the invention was made, or more than one year prior to the effective filing date of the application." This additional requirement of S. 2597 would codify the ruling of the Court of Customs and Patent Appeals in *In re Foster*, 343 F2d 980, 145 USPQ 166 (1965). Under this decision, an applicant may not dispose of a reference, having an effective date more than one year prior to his filing date, by proving an earlier date of invention.

In the context of the priority system having a one-year absolute grace period which would be adopted by S. 2597, the one-year limitation on disposing of references would be desirable. Thus, if the Committee were to recommend the priority system embodied in S. 2597, the Department would favor the reference to one year of section 103 of S. 2597.

Chapter 17 of S. 2597: Secrecy of Certain Inventions and Filing Applications in Foreign Countries

Under section 184 of existing law applicants must either obtain a license from the Commissioner of Patents or wait six months after filing a U.S. application before filing an application for patent in a foreign country. Each application containing an invention, the disclosure of which might be detrimental to national security, is made available for inspection by those departments and agencies designated as defense agencies prior to the granting of the license or the expiration of six months [§ 181].

S. 1042 in sections 181 and 184 retains existing law insofar as complete applications for patent are concerned.

S. 2597, in addition to providing for filing abroad after obtaining a license from the Commissioner of Patents or waiting six months after filing a U.S. application, would also authorize the Commissioner to establish a general license for filing an application for patent in a foreign country [§ 181 (a)].

While the establishment of a general license for the foreign filing of applications involving non-sensitive subject matter might be desirable, we question whether such a general license is feasible or in the national interest.

We have been advised by the Bureau of the Budget that there would be no

objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

JOSEPH W. BARTLETT, *General Counsel*.

[Attachment]

APPENDIX TO LETTER OF DEPARTMENT OF COMMERCE TO SENATOR EASTLAND ON
S. 2597 TECHNICAL COMMENTS

GENERAL COMMENT

Where differences are noted between the present law or S. 2597 and the Patent Reform bill, the Department usually prefers the provisions of the latter except where noted. In some instances, however, we lack knowledge of the reasons underlying the changes that would be made by S. 2597, and are unable to reach a definite conclusion until those reasons are stated by its sponsors.

SECTION 3

Under existing law, the first and two other assistant commissioners and not more than fifteen examiners-in-chief are each appointed by the President. Under S. 2597, the President would continue to appoint these officers, and the number of examiners-in-chief would be increased to twenty-four. The Patent Reform bill (S. 1042) would vest the power of appointment for the assistant commissioners and examiners-in-chief in the Secretary of Commerce, upon the nomination of the Commissioner, and would likewise increase the number of examiners-in-chief to not more than twenty-four. The President would continue to appoint the Commissioner of Patents under both the Patent Reform bill and S. 2597, the same as under present law.

SECTION 6

Under existing law, the Commissioner of Patents, subject to the approval of the Secretary of Commerce, may establish regulations not inconsistent with law for the conduct of proceedings in the Patent Office. The Patent Reform bill would continue the requirement that regulations established by the Commissioner be subject to the approval of the Secretary of Commerce, while S. 2597 would authorize the Commissioner to establish regulations not inconsistent with law, apparently without the Secretary's approval.

SECTION 7

Under existing law, questions relating to priority of invention are determined by the Board of Patent Interferences, while questions of patentability come within the jurisdiction of the Board of Appeals. The first-to-file system of the Patent Reform bill would eliminate the need for interferences and vest the residual functions of the Board of Patent Interferences in the Board of Appeals.

S. 2597 would retain interference practice, and provide the Board of Appeals with authority to determine both questions of patentability and priority.

SECTION 11

S. 2597 would authorize the Commissioner to publish patent applications and patents, as well as other publications and informational material, without the requirement that they be printed. Present Title 35 and the Patent Reform bill both provide, on the other hand, that these publications be printed.

The Department favors the broadened authority of S. 2597, permitting publication other than by printing. The adoption of microform searching, for example, might present difficulty, if the Commissioner's authority to publish these materials were limited to printing. More importantly, published patents and applications will serve as prior art under both the Patent Reform bill and S. 2597. Since neither of these bills would require prior art patents and publications to be printed, a limitation of the Commissioner's authority requiring the printing of patents and applications would be inconsistent with the removal of the printing requirement for prior art.

We, therefore, prefer this provision of S. 2597.

SECTION 100

S. 2597 would specifically include the Commonwealth of Puerto Rico in the definitions of the "United States" and "this country." The Department considers this inclusion proper.

The requirement of reasonable availability in order for patents and publications to serve as prior art is unclear as to its meaning. Presumably, this requirement is directed to foreign patents and publications, which may not be reasonably available to United States citizens. A further possibility is that publications, such as small town newspapers, may not be considered reasonably available.

The language of S. 2597, namely "actual filing date," would appear to prohibit reliance on a patent or a published application as prior art as of its earliest United States priority date. Stated in other words, the actual filing date would not seem to be the date to which an application may be entitled under section 120 of S. 2597. This should be corrected.

Sale as a bar to patenting under S. 2597 would be limited to instances where a sale had actually been consummated. Under present title 35, the "on sale" requirement of section 102 includes broadly even the placing on sale of the invention, as would the corresponding provision of section 102 of the Patent Reform bill. Neither requires a consummated sale, nor is this a requirement for the institution of a public use proceeding under present law or the reexamination proceedings of the Patent Reform bill.

SECTION 102

S. 2597 would provide that an applicant is not entitled to a patent if he has abandoned the invention. This provision does not, however, consider that abandonment may have resulted from the acts of the inventor or an intermediate owner prior to acquisition of title by the applicant.

Similarly, S. 2597 would consider as a bar under 102(c) only the patenting of the invention in a foreign country by the applicant. Again, we consider that the patenting of the invention by the inventor, as well as by an applicant not the inventor, should constitute a bar to future patenting under this section.

S. 2597, in contrast with both present title 35 and the Patent Reform bill, would bar a patent when the invention sought to be patented is *identically* disclosed by the prior art. The inclusion of "identically" is presumably intended to define the distinction between this requirement of section 102 and the unobviousness which is required at section 103, also referring to an identical disclosure.

SECTION 107

Under present law the abandonment of an application does not, of itself, establish the abandonment of the invention disclosed in the application. An abandonment for the purpose of filing a continuation application, or for terminating an interference, for example, is not considered as an abandonment of the invention, but only of the application.

The Patent Reform bill contains no provision specifically enacting this rule of law regarding the relation between abandonment of the application and abandonment of the invention, but S. 2597 states specifically that abandonment of the application may not establish abandonment of the invention.

Similarly, S. 2597 states that publication either upon allowance or at the applicant's request refutes any inference that the disclosed invention was abandoned after its effective filing date. We believe that the word "refutes" is inapt in this context, and overstates the proper legal position.

SECTION 111

S. 2597 would permit the filing of a patent application by an agent of the inventor or applicant, providing the application is ratified by the owner or inventor within six months following filing. Present title 35 permits filing only by the inventor, even though the invention is owned by another at the time of filing. The Patent Reform bill makes no specific provision for filing by an agent. We believe that clarification of the term "ratification" is desirable in S. 2597.

SECTION 112

S. 2597 would remove the requirement, present in both existing law and the Patent Reform bill, that the specification of an application contain a description

which includes the manner of using the invention. S. 2597 would require only that the use of the invention be indicated in the specification.

The Department favors the provision of the Patent Reform bill under which the manner of using must be described in the specification. This more stringent requirement would provide the prior art with "enabling" disclosures, by which the Patent Office and the public would be better informed of the extent of the patent grant and better able to use the invention following the termination of the patent.

An applicant under S. 2597 would be entitled to claim in his application the subject matter for which he desires a patent, while the Patent Reform bill would permit only the claiming of subject matter which the inventor regards as his invention. The Department favors the Patent Reform bill position.

SECTION 120

Under both existing law and the Patent Reform bill, an inventor may be entitled to the benefit of the filing date of his earlier filed application, regardless of the ownership of the applications involved. S. 2597 would apparently modify this right and entitle an applicant to the benefit of the filing date of his earlier filed application, even if the inventors were different persons in each of the applications.

This provision of S. 2597 would simplify the determination of any right to priority (the benefit of an earlier filing date) to which an application may be entitled. Absent this provision of S. 2597, priority as to a particular claim could not be accorded unless the inventor of such claim was also the inventor of the same subject matter in the prior application. The determination of the inventorship of a particular claim, under either the Patent Reform bill or S. 2597, could be quite difficult, since each claim of an application need not be invented by each of the named inventors. In many cases, the award of priority would require correspondence establishing the inventorship of the subject matter in each of the involved applications.

From this discussion it will be seen that this provision of S. 2597 would remove procedural difficulties in deciding the right to priority.

SECTION 121

This section appears to make significant changes in interpretation of the law of double patenting. Their full impact is unclear to us at the present time.

SECTION 137

The requirement of existing law that agreements settling interferences be filed in the Patent Office has been omitted from this section. Such a provision should be included if a modified first-to-file system is adopted.

SECTIONS 184-185

S. 2597 would permit the granting of a retroactive license for the filing abroad of a patent application, even after the issuance of the corresponding United States patent. Courts under present Title 35 have permitted retroactive licenses to be granted for issued patents, although there is no specific authorizing provision for doing so, and the Patent Reform bill would probably be interpreted in this same manner.

Both existing law and S. 1042 provide that the failure to obtain a license for foreign filing will result in the invalidity of any corresponding United States patent. S. 2597, however, would permit courts of competent jurisdiction either to hold a patent so obtained invalid or to order the issuance of a retroactive license.

Under S. 2597, the Patent Office would be established as the sole governmental agency authorized to grant a license or establish a general license. The Department points out, however, that the exporting of technical information, including that contained in applications for patents in foreign countries, is vested in governmental agencies other than the Patent Office, under various statutes including the Export Control Act. The proposed bill does not modify the export control requirements of these statutes and the Department would oppose any change in the patent laws which would cause such modification.

SECTION 251

S. 2597 would authorize an exception to the prohibition against broadened claims in belatedly filed reissue applications, when presented to provoke an interference with an issued patent.

SECTION 284

S. 2597 would enlarge the right of a patentee to damages for infringement over those rights provided in both existing law and the provisions of the Patent Reform bill. It would permit damages for any infringing use which are in no event less than a reasonable royalty or less than the infringer's profits attributable to the infringement. The Patent Reform bill would provide only for the recovery by the patentee of damages not less than a reasonable royalty for the infringing use, as does present title 35.

GENERAL COUNSEL OF THE DEPARTMENT OF COMMERCE,

Washington, D.C., February 23, 1968.

Hon. JOHN L. McCLELLAN,
Chairman, Subcommittee on Patents, Trademarks and Copyrights,
U.S. Senate,
Washington, D.C.

DEAR MR. CHAIRMAN: Since the introduction of the Patent Reform Bill, S. 1042, on February 21, 1967, the agencies within the Executive Branch have suggested several technical amendments. It is requested that these amendments, outlined below, be incorporated into the Patent Reform bill.

SECTION 15

On page 5, line 39, delete "from the general public."

Add the following section which was inadvertently omitted:

"(d) Members of the Council, while attending meetings or conferences of such Council, or otherwise engaged in the business of such Council, shall be entitled to receive compensation at a rate fixed by the Secretary, but not exceeding \$100 per diem, including travel time, and while so serving on the business of the Council away from their homes or regular places of business, they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law for persons in the Government service employed intermittently."

The accommodates the suggestions of NASA and the Department of Justice that government agencies should be represented on the section 15 Advisory Council.

SECTION 105

On page 11, line 30, insert the word "actual" before "date of filing."

This makes it clear that a person must file a complete application rather than a preliminary application within six months of an unauthorized disclosure.

[Because of the Administration's testimony in favor of Senator Long's Amendment No. 182 which would rewrite this section, clarification would also be needed in Senator Long's amendment.]

SECTION 111

Delete subsections (a), (b) and (c) and insert in lieu thereof the following:

"(a) A complete application for patent may be filed by either the inventor or owner of the invention sought to be patented. Such application shall be made in writing to the Commissioner, shall be signed by the applicant and include the name of each person believed to have made an inventive contribution, and shall be accompanied by the prescribed fee. A complete application for patent shall include:

"(1) a specification as prescribed by section 112 of this title;

"(2) a drawing as prescribed by section 113 of this title; and

"(3) if filed by the inventor, an oath prescribed by section 115(a) of this title.

"A complete application filed by a person not the inventor shall also include, at the time of filing, a statement of the facts supporting the allegation of ownership of the invention.

"(b) A preliminary application containing a written description of an invention may be filed by any person entitled to file a complete application. The pre-

liminary application shall be made in writing and shall be accompanied by the prescribed fee."

Reletter subsections (d) and (e) as (c) and (d), respectively.

The bill in its present form is thought to be too strict in the statutory requirements for a preliminary application and may not provide sufficient authority for granting a preliminary application a filing date in cases where one or more of the statutory requirements are not satisfied. Section 111 now requires a preliminary application: (1) to be in writing, (2) to be signed by the applicant, (3) to name each person believed to have made an inventive contribution, (4) to be accompanied by the prescribed fee, and (5) if the applicant is not the inventor, to include a statement of facts supporting the allegation of ownership.

As rewritten, section 111 would only require that a preliminary application be in writing and be accompanied by the prescribed fee. The section would also give the Commissioner authority to establish other requirements by regulation and to specify when these other requirements must be satisfied.

SECTION 114

Designate the first sentence as subsection (a) and add the following subsection (b), which was inadvertently omitted:

"(b) When the invention relates to a composition of matter, the Commissioner may require the applicant to furnish specimens or ingredients for the purpose of inspection or experiment."

SECTION 119

On page 15, line 17, insert "without having been laid open to public inspection and" before the word "without."

This phrase was inadvertently omitted from the section.

SECTION 134

On page 18, line 10, insert "finally or" before "twice."

This would permit an appeal from "finally rejected" claims as well as those "twice rejected." This takes care of present practice where, under special circumstances, a final rejection can be given on the first action.

SECTIONS 181 AND 184

On page 24, line 2, insert "described in an application" after the word "invention."

Delete subsection (b) and insert in lieu thereof the following:

"(b) Whenever, with respect to an invention described in a particular preliminary application, a notification of interest with respect to national security is received from a Government agency, or a license under section 184 of this title is requested, or whenever the publication or disclosure of an invention described in a complete application in which the Government does not have a property interest, might, in the opinion of the Commissioner, be detrimental to the national security, the Commissioner shall make the application for patent in which such invention is disclosed available for inspection to the Atomic Energy Commission, the Secretary of Defense, and the chief officer of any other department or agency of the Government designated by the President as a defense agency of the United States."

On page 24, line 19, delete "Secretary of a Defense Department" and insert in lieu thereof "Secretary of Defense."

On page 27, line 4, insert "preliminary or" after "means a."

These changes are to eliminate the concern of the Department of Defense that an invention of a sensitive nature might be divulged during the one year period an applicant has in which to perfect his preliminary application by filing a complete application. These changes would give the Commissioner of Patents the additional authority to classify and withhold publication of any preliminary application where the Government has a property interest in the invention and where such publication might be detrimental to the national security. Where there is no Government property interest in an invention, the changes would require the Commissioner to make a preliminary application available for inspection to all government departments and agencies designated as defense agencies where, for that particular application, a notification of interest with respect to national security is received or a license is requested under section 184. The changes would not require the Patent Office to screen preliminary applications. In addition, the

automatic license to file abroad would still not become effective until the expiration of six months from the filing of a complete application.

The change on pages 24, line 19, in section 181 (c) makes the language consistent with that in section 181 (b).

SECTION 188

On page 27, lines 38 and 39, delete "Secretary of a Defense Department" and insert in lieu thereof "Secretary of Defense."

This change makes the language consistent with that in section 181 (b).

SECTION 271

On page 34, line 24, delete "the" and insert in lieu thereof "that general class of."

This change is to eliminate the concern of the Justice Department that the proviso as originally written might be interpreted to apply to situations where, although process patents were available in the country of origin, it was determined that the particular process in question was not patentable.

SECTION 294

On page 39, line 37, delete "properly before the court" and insert in lieu thereof "drawn into question."

This accommodates the Justice Department's suggestion making consistent the wording of subsections (a) and (c).

28 USC 1542

On page 41, line 15, insert "or the Trademark Trial and Appeals Board" after "Patents."

This change, which should have been made when the Trademark Trial and Appeals Board was established, accommodates this section to existing law.

We have been advised by the Bureau of the Budget that there would be no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

PEDRO R. VAZQUEZ
(For the General Counsel).

OFFICE OF THE DEPUTY ATTORNEY GENERAL,
Washington, D.C., March 1, 1968.

HON. JAMES O. EASTLAND,
Chairman, Committee on the Judiciary,
U.S. Senate, Washington, D.C.

DEAR SENATOR: This is in response to your request for the views of the Department of Justice on S. 2597, a bill "For the promotion of the progress of the useful arts by the general revision of the Patent Laws, title 35 of the United States Code, and for other purposes."

The recommendations of the President's Commission on the Patent System, if enacted, would be the most significant changes in our patent system since 1836. The Administration Patent Reform Bill (S. 1042) would implement most of the recommendations of the President's Commission. S. 2597, on the other hand, would retain much of present law, where the President's Commission urged revision, and would change other parts of the patent law in a manner inconsistent with the Commission's findings.

We have favored passage of S. 1042 since its proposal and we are opposed to passage of S. 2597, which we feel would not advance the purposes of improving the patent system and protecting the public interest. However, we are willing to accept certain modifications in S. 1042 which do not detract from its basic objectives, some of which were described in the letter from the Department of Commerce to you dated January 24, 1968. Some additional views on S. 2597 are stated below.

(1) We are of the view that where the issuance of a patent is delayed by a Secrecy Order, a patentee in any suit against the Government for use of his invention should not be protected for the full term of a patent and in addition for the period during which his patent application was under a secrecy order. In

other words, his protection against Government use should be for the same length of time as is the protection against use by others.

(2) For a long period of time there has been a proposal to provide a single court for the intermediate review of all decisions of the Patent Office. The President's Commission proposed to achieve this objective by its recommendation that decisions of the Court of Customs and Patent Appeals be reviewable in the United States Court of Appeals for the District of Columbia. S. 1042 implements that recommendation by giving discretionary review power to that Court of Appeals. This proposal has met with criticism from many sources. S. 2597 would consolidate the review of all Patent Office decisions in the Court of Customs and Patent Appeals, which would be increased by four judges, making a total of nine on the court. We strongly oppose this proposal of S. 2597. We would favor the continuation of the practice which is provided by existing law, in preference to the change proposed by S. 2597.

(3) An important technical change to S. 1042 was suggested in the testimony of Assistance Attorney General Donald F. Turner before the Subcommittee on Patents, Trademarks and Copyrights on May 18, 1967. Mr. Turner stated that subsection (f) of section 5 of the bill, which refers to the effective date of the proposed Patent Reform Act, should be clarified. As presently drafted, it says that the Act does not affect any existing rights or liabilities. It was the intention of the draftsmen that the estoppel provision should become effective immediately, not after 17 or 20 years. Therefore, we suggest that section 5 be amended by deleting subsection (f) and substituting the following:

"(f) Section 294 of title 35, as enacted by section 1 hereof, shall take effect on the effective date of this Act.

"(g) The amendment of title 35, United States Code, by this Act, shall not affect any rights or liabilities existing under title 35 in effect immediately prior to the effective date of this Act, except as provided in subsection (f) of this Section."

Subject to the above comments, we concur with the views of the Department of Commerce on S. 2597 as expressed in the letter from that Department to you dated January 24, 1968.

The Bureau of the Budget has advised that there is no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

WARREN CHRISTOPHER,
Deputy Attorney General.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.

Washington, D.C.

Hon. JAMES O. EASTLAND,
Chairman, Committee on the Judiciary,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This replies further to your letter of November 13, 1967, requesting the comments of the National Aeronautics and Space Administration on the bill S. 2597, "For the promotion of the progress of the useful arts by the general revision of the Patent Laws, title 35 of the United States Code, and for other purposes."

In February of last year, Senator McClellan introduced on behalf of the Administration S. 1042, the Patent Reform bill, which was based primarily on the Report of the President's Commission on the Patent System. This Commission was convened to "recommend to the President steps to insure that the patent system will be more effective in serving the public interest in view of the complex and rapidly changing technology of our time." S. 1042 would make sweeping revisions to the patent system. These revisions would constitute the first basic change in the United States patent system since 1836 and would significantly alter many aspects of patent practice.

In this context, realizing that certain improvements to our present system are possible and desirable, both to expedite domestic practice and bring the U.S. system more into harmony with other systems throughout the world, the American Bar Association has drafted a bill which is characterized as a compromise position between that of current title 35 and the Patent Reform bill, S. 1042. This bill, S. 2597, was introduced by Senator Dirksen on October 30, 1967.

The following comments, relating to the most significant aspects of S. 2597, represent the views of this agency as the bill is viewed in the context of the NASA mission.

As explained herein, these views are flavored by our firm belief that ultimately patent systems throughout the world must and will be drawn into harmony toward a universal patent system which will greatly facilitate international trade and technological exchange.

AWARD OF PATENT TO "FIRST-TO-FILE"

Under existing law patents are issued to the "first inventor" when competing claims exist to the same invention and the question of who is entitled to the patent is determined in a proceeding known as an interference. In such a proceeding each contestant is allowed to prove his initial date of conception of the invention and the subsequent reduction to practice thereof. Generally the patent will be awarded to the first inventor to conceive the invention and diligently act to reduce it to practice. Interference proceedings may arise in the Patent Office between two or more pending applications or between an issued patent and a pending application.

S. 1042, in line with the Recommendations of the President's Commission, would completely eliminate interferences and the patent would be awarded to the first applicant to file regardless of the date of conception. The primary reasons for this fundamental change are the incentives such a system would offer to the inventor to file promptly, the benefit to the public of an early disclosure of the invention, and the fact that every other major free-world patent system (save Canada and the Philippines) is based on a first-to-file system.

S. 2597 preserves a modified interference practice while at the same time granting the patent to the first applicant to file. This is accomplished by allowing the interference proceeding only with regard to an issued patent. That is, an interference cannot be declared until at least one of the competing applications has issued as a patent. The owner of a competing, pending application may then request that a contest be commenced. Additionally, the Patent Office would no longer be empowered to declare an interference on its own initiative. These steps would appear desirable in that they would simplify existing interference procedures, which are costly and time consuming, and bringing the United States closer to international practice.

As an example of the oftentimes prolonged and costly interference contest, in a recently (1967) case the court, after reviewing the priority decision of the Board of Patent Interferences, ordered the Patent Office to issue a patent on an invention conceived in 1948. An application had been filed in 1951 and, at the time of the court's decision, had been pending 16 years. The general public was thus deprived of the patent disclosure for almost twenty years from the date of conception.

Under S. 2597 there is, as in existing practice, no limit to the earliest date to which parties to interference proceedings may revert to prove dates of conception. It has been suggested that the interference proceedings of S. 2597 be modified to include a one year maximum time limit preceding the date of filing within which applicants may establish priority. Such a limited interference proceeding would constitute an acceptable compromise between the strict first-to-file of S. 1042, where a true first inventor may be foreclosed even though he has acted promptly within the spirit of the Patent Statutes, and the first-to-invent rule of S. 2597, where an inventor who has not been diligent in pursuing a disclosure through the patent system may nevertheless obtain a patent over a competing applicant with an earlier filing date. If adopted, such a limitation should apply to all applicants, both domestic and foreign, to complement a system based on universal prior art as further discussed below.

On balance, this Agency favors the adoption of a first-to-file system with the inclusion of some form of personal grace period to protect an inventor's disclosure for a limited period of time; however, in the alternative, if the first-to-invent system of S. 2597, limited as suggested above, were to be enacted, we believe this would also constitute a beneficial change to existing law.

GRACE PERIOD

S. 2597 retains the present one-year absolute grace period in which an inventor may file an application. S. 1042 eliminates this grace period and would bar the issuance of a patent where the invention has been "made available" to the public before the effective filing date of the application. Amendment No. 182 to S. 1042 would establish a six-month personal grace period for the inventor prior to the filing of a complete patent application.

Previously, in commenting on S. 1042 this agency pointed out that the elimination of the grace period would seriously impair NASA's information dissemination and patent programs. The National Aeronautics and Space Act of 1958 [42 U.S.C. 2473(a) (3)], directs this agency to "provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof." To this end NASA's Technology Utilization Program produces a series of technical publications regarding sponsored research and development. Additionally, reports generated under NASA contracts are routinely given the widest practicable dissemination promptly after their preparation. On the other hand the National Aeronautics and Space Act, [42 U.S.C. 2457(h)], directs the Administrator to take all necessary steps to protect any invention to which he has title.

If the grace period is eliminated as proposed in S. 1042 it will be quite difficult to maintain effectively NASA's complementary publication and patent programs. Since a finite amount of time is necessary to identify valuable inventions and to prepare patent applications thereon, it would generally be necessary to forego patent protection or to suppress information relating to the invention until the date of filing, or until a decision not to file was reached. Suppression would violate the directive of 42 U.S.C. 2473(a) (3) and would also be contrary to one of the underlying objectives of the Patent Reform—that of introducing new technology at the earliest possible time.

For these reasons, NASA strongly supports some form of grace period in any patent revision bill that Congress may eventually pass. If the first-to-file system of S. 1042 were to be enacted, we would strongly favor the inclusion of a personal grace period as would be established by the aforementioned Amendment 182. With regard to S. 2597, it should be noted that the one year grace period as included therein would dovetail with the supplemental proposal (mentioned above) to allow a maximum one-year time limit on establishing priority in interference proceedings under the first-to-invent system.

UNIVERSAL PRIOR ART

Under existing law and also that proposed in S. 2597 a foreign national who reduces his invention to practice outside the United States may not prove these acts in establishing priority of invention in a U.S. patent interference. Also, acts such as use or sale in foreign countries do not constitute prior art with respect to pending U.S. applications.

International patent objectives of this country have been stated to include the following: the furthering of foreign commerce and technological exchange, the reduction of the burden on U.S. inventors of filing separate patent applications in each country in which patent protection is desired, and the fostering of cooperation and resulting economies of patent offices throughout the world. Accordingly, the United States must begin to take thoughtful and forward-looking steps not only to strengthen and improve its present system but also to adopt provisions and standards which will provide a realistic basis for promoting international cooperation and harmonization. The concept of "universal prior art" equates extraterritorial acts such as public knowledge, reduction to practice, prior use or sale to acts occurring within the country. NASA favors adoption of the concepts of universal prior art as recommended by the President's Commission and included in Section 102(a) of S. 1042.

An additional specific comment regarding the definition and application of prior art in S. 2597 is also pertinent here. Section 100(h) (3) of this bill would establish patents or publications as prior art if such documents are "reasonably available." No standard exists to determine when a document is "reasonably available." This term is subject to infinite interpretations and would only serve to confuse and compound patent proceedings.

PRELIMINARY APPLICATION

S. 2597 does not provide for the use of preliminary applications, which are not considered necessary in view of the retained one-year absolute grace period. This agency would endorse the use of such preliminary applications if a first-to-file system lacking a grace period, such as that proposed in S. 1042, is finally adopted. However, if a grace period, as discussed above, is included in S. 1042, we believe there is no reason to retain the provisions for filing preliminary applications. This would eliminate a potentially administratively burdensome procedure from the bill.

CLASSES OF PATENTABLE SUBJECT MATTER-COMPUTER PROGRAMS

S. 1042 would exclude computer programs as patentable subject matter. In view of the present and undoubted future impact of this area of technology on our economy it would appear premature to exclude this subject matter from the protection and incentives supplied by the Patent Statutes. We would therefore endorse S. 2597 for its omission of this prohibition and propose that further study of the problems and possible consequences be undertaken before any legislative action is taken.

ASSIGNEE FILING

Although it is believed that benefits would be derived from allowing the owner of a patent to file an application, we would express serious concern over enactment of S. 2597 as proposed. Under the terms of this bill when an owner of an application files in the name of the inventor no further oath or acknowledgement is required from the inventor. Upon filing, the owner or an agent need only supply "a statement of facts supporting the allegation of ownership" and an oath *by the owner* stating that he believes the inventor to be the true inventor. Thus, no assignment or oath *from the inventor* would be necessary.

It is this agency's view that filing by the owner without any subsequent acknowledgment by the inventor would seriously jeopardize the integrity of patents so obtained. Our experience has indicated that patent applications must be thoroughly reviewed by the inventor both before filing and, importantly, before allowance and issue to assure that the claimed subject matter is indeed the result of the inventor's efforts. Merely mailing a copy of the owner's oath and application to the inventor after filing, Section 111(c), does not assure that the statements therein are accurate.

We support the provisions of S. 1042 which provide for assignee filing but require a subsequent oath or declaration *by the inventor* to the claimed subject matter and also a recorded assignment *from the inventor*.

The filing of an application by the owner allows him to expedite patenting and commercialization of the claimed invention; however, the enactment of filing procedures as permissive as those proposed by S. 2597 would more than likely often result in the allowance of claims unsupported by the acts of the inventor. To remove the inventor from this critical stage of the patent process would cast a cloud on all subsequent proceedings, and would indeed appear to endanger the integrity of the patent system.

JOINDER OF INVENTORS

We support the proposition included in both S. 1042 and S. 2597 that to be a joint inventor a person need only make an inventive contribution to the claimed subject matter and need not be an inventor as to each and every claim. The latter interpretation, presently in effect, is quite narrow and unrelated to the practicalities of today's inventions which are often the result of the cumulative expertise of research scientists, engineers, and technicians.

PUBLICATION

We support the proposition that publication of pending patent applications is an effective tool for more rapidly transferring the fruits of the patent system to the general public, and believe that any patent statute revision enacted should include such provisions. S. 1042 provides for automatic publication of pending applications between eighteen and twenty-four months from the application's effective filing date. S. 2597 contains no similar provision for automatic publication; however, under both bills an applicant may voluntarily request that his application be published at any time during its pendency.

The patent grant is a limited right given to an inventor in return for the disclosure to the general public of the inventor's improvement or discovery. Such disclosure represents an addition to the general store of knowledge in the public domain. It would appear inequitable for the Patent Office to unilaterally proceed with the publication of pending applications until there is an indication that some right will be granted to the inventor. We therefore propose that no automatic publication of pending patent applications take place until a claim to the invention is *allowed*. This would constitute sufficient consideration to allow such public disclosure and its beneficial effects.

While there may be individual instances in the Patent Office where the automatic publication of an application may have merit, such as certain applications

involved in appeal or interference proceedings, we feel that a general exception to our views that an allowable claim should exist is not necessary. Assuming the projected continued improvement in work schedules of the Patent Office, the delay of an appeal proceeding should not be unduly lengthy. In the case of interference proceedings, the allowable subject matter or contested claims would normally have been published previously in the form of the issued patent or the published application of the senior party.

We would favor a provision for publication similar to that of Section 123(a) of S. 1042 if it were modified to the extent that published applications must contain at least one allowed claim.

CITATION PERIOD

S. 2597 provides for a citation period similar to that of S. 1042 with one significant addition. During the citation period members of the public are allowed to present to the Patent Office information pertinent to the patentability of published inventions. S. 2597 includes a provision (not included in S. 1042) whereby during this period evidence may be presented by any member of the public that the inventor named in the application was not the first inventor of the invention. Section 136(d) (3).

The above practice would amount, in effect, to a substantial broadening of interference proceedings before the Patent Office. Since one of the major purposes of all the recent patent revision bills is to expedite issuance of patents while streamlining prosecution procedures, we have serious doubts about the inclusion of this provision. Section 137 of the bill provides for interference proceedings *after* the first-filed application has issued. The other parties to these proceedings must also be applicants. Under Section 136(d) (3) a new kind of "quasi-opposition" or interference proceeding would be established wherein the party opposing the applicant need not have a pending application. We believe instances of the nature described in this section would best be handled outside the Patent Office in an inter-parties proceeding.

FILING APPLICATIONS IN FOREIGN COUNTRIES

Section 184 of S. 2597 would constitute the Patent Office as the *sole* government agency to "grant a license or establish a general license" to file a patent application abroad. Such a provision should be studied carefully in light of other applicable laws and regulations in this area, such as the Mutual Security Act of 1954, [22 U.S.C. 1934], and State Department and Department of Commerce regulations, [22 C.F.R. 125; 15 C.F.R. 385], on the exportation of technical data abroad. We defer to the views of the Departments of Defense, Commerce and State in this regard.

SECTION 305 (D) OF THE NATIONAL AERONAUTICS AND SPACE ACT

Section 7 of S. 2597 provides that the Patent Office Board of Appeals shall—

(b) (3) Perform the functions specified as being performed by a Board of Patent Interferences in Public Law 593, Eighty-second Congress (ch. 950, 66 Stat. 792, section 1), and in other Acts of Congress and when performing said function shall constitute a Board of Patent Interferences.

In view of the requirements of sections 305(d) and (e) of the National Aeronautics and Space Act of 1958 [42 U.S.C. 2457(d), (e)] relating to duties of the Board of Patent Interferences, it might be preferable for the phrase "Public Law 568, Eighty-fifth Congress, 72 Stat. 426" to be appropriately inserted in the above paragraph to cite clearly the application to the National Aeronautics and Space Act. However, the provision as drafted is considered to be sufficient from the standpoint of this agency.

Furthermore, under section 305(d) of the National Aeronautics and Space Act, questions of title to inventions that may have been made under a NASA contract are required to be heard and determined by the Board of Patent Interferences in accordance with "... rules and procedures established for interference cases, ..." While proposed section 7 provides that this Board will be replaced by the Board of Appeals, no corollary provision is made to designate the procedure and rules to be substituted for those provided in current section 305(d). Promulgation of rules by the Board of Appeals and the Commissioner of Patents will be necessary under the proposed bill to prescribe procedures for implementing the requirements of section 305(d) and (e) of the National Aeronautics and Space Act.

In conclusion, NASA would endorse certain provisions of S. 2597, as discussed above, and would especially endorse the recognition in the bill that a form of grace period is necessary to enable this agency and others to utilize the patent system as a vital and effective force in the creation, identification, dissemination, and use of new technology. However, on balance, this agency favors enactment of previously introduced bill S. 1042 with the inclusion of Amendment No. 182.

The Bureau of the Budget has advised that, from the standpoint of the Administration's program, there is no objection to the submission of this report to the Congress.

Sincerely yours,

J. S. BROWN,
Deputy Assistant Administrator for Legislative Affairs.

EXECUTIVE OFFICE OF THE PRESIDENT,
OFFICE OF SCIENCE AND TECHNOLOGY,
Washington, D.C., January 25, 1968.

HON. JAMES O. EASTLAND,
Chairman, Committee on the Judiciary,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of the Office of Science and Technology on S. 2597 providing for a general revision of U.S. Patent Laws.

I have delayed responding to your request in order to give the matter careful attention in consultation with the Departments of Commerce and Justice.

Accordingly, I subscribe to the views expressed in the letter being submitted to your Committee by Mr. Joseph Bartlett, General Counsel of the Department of Commerce.

Sincerely yours,

DONALD F. HORNIG, *Director.*

THE GENERAL COUNSEL OF THE TREASURY,
Washington, D.C., February 19, 1968.

HON. JAMES O. EASTLAND,
Chairman, Committee on the Judiciary,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: The attention of this Department has been called to S. 1042, "For the general revision of the Patent Laws, title 35 of the United States Code, and for other purposes," which, together with Amendments Nos. 182 to 186, is pending before your Committee. The Department would like to make some comments on certain sections of the bill and Amendment No. 184.

The proposed legislation would enact into positive law title 35 of the United States Code which relates to patents. Subsection (b) of section 271 of new title 35 would provide: "Whoever, without authority of the patentee, imports into the United States, for purposes of trade or use in trade or industry, a product made in another country by a process patented in the United States shall be liable as an infringer provided patent protection for the process is not available in such country." As amended by proposed Amendment No. 184, subsection (b) of section 271 would provide: "Whoever, without authority of the patentee, imports into the United States, for purposes of trade or use, a product made in another country by a process patented in the United States shall be liable as an infringer." Section 281 would provide: "A patentee shall have remedy by civil action for infringement of his patent." Section 283 would provide: "The several courts having jurisdiction of cases under this title may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable."

In view of the provisions listed above, it is our expectation that the Bureau of Customs of this Department would not be obliged to make determinations under the patent laws, as revised, to exclude administratively imports from entry, or to detain, seize or forfeit any imported products, except to participate in carrying out an injunction or restraining order of a district court, as the latter deems reasonable to prevent the violation of rights secured by patent. The Department does not anticipate any unusual administrative difficulties in enforcement at ports of entry of injunctive relief or similar restraints on infringing imports.

The proposed legislation does not contain any provision authorizing the Bureau of Customs, subject to an appropriate user fee, to disclose to domestic patent owners information from customs entries covering imports suspected of being products of foreign infringing uses. At the present time, this information is made available on the basis of the "unfair competition" concept of section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337). The Bureau's regulations on this matter are contained in 19 CFR 12.39a and 24.12(a)(3). It is not anticipated that the omission of such a provision would result in discontinuance or changes in these procedures.

The Department has been advised by the Bureau of the Budget that there is no objection from the standpoint of the Administration's program to the submission of this report to your Committee.

Sincerely yours,

FRED B. SMITH, *General Counsel*.

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.,
Washington, D.C., March 1, 1968.

Senator JOHN L. McCLELLAN,

*Chairman, Subcommittee on Patents, Trademarks, and Copyrights,
New Senate Office Building, Washington, D.C.*

DEAR MR. CHAIRMAN: By a letter dated November 22, 1967, the Aerospace Industries Association of America, Inc. transmitted comments on S. 1042. In view of the recent hearings on S. 2597, we would now like to present our views on that proposed legislation as well as further views on S. 1042.

The Association will be pleased to provide any assistance the Subcommittee may desire in connection with its consideration of these matters.

Very truly yours,

KARL G. HARR, JR.

STATEMENT OF THE AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC., ON
S. 2597, THE PATENT ACT OF 1967

The Aerospace Industries Association of America, Inc., has and will continue to support legislation to improve the efficiency and effectiveness of the United States Patent System that has contributed so materially to the economic and technological progress of both industry and the country as a whole. We have previously expressed our views on S. 1042 and appreciate the opportunity to comment on S. 2597. It is gratifying to note that several of our recommended changes to S. 1042 appear in S. 2597 and that spokesmen for the Administration have expressed acceptance thereof.

We understand that S. 2597 was introduced at the request of the American Bar Association. Our comments are based upon S. 2597 as it was modified by that Association at a meeting in Honolulu in August, 1967, and which modification has been furnished to the Subcommittee.

In general, we support S. 2597, as thus amended, and therefore will not comment on those provisions which we favor. As will appear hereinafter, however, we support some provisions of S. 2597 only with proposed modifications, oppose others and, in one case, have deferred comment to those more closely associated with the particular subject matter. In certain instances, the provisions of S. 1042 are preferred. Our remarks have been prepared accordingly.

S. 2597—Provisions Supported Only With Proposed Modifications

Section 100(i)(1) (as amended), Definitions "prior art".—We urge the following modification: change "actual" to *effective*; after "date" change "in the United States" to *(United States or foreign)*. Thus, we support the effective filing date of a U.S. patent or application for all purposes.

Section 120(a)(4), "Claim of Priority."—We support this provision with the understanding that the term "thereof" (last word) relates to the claim of priority.

Section 283, Injunction.—We support paragraph (a) but urge deletion of paragraph (b). We believe that in appropriate cases, where equity demands an injunction, the courts should not be precluded from granting such relief.

S. 2597—Provisions Opposed

Section 100(h) (as amended), Definitions "useful."—We urge deletion of this provision as unnecessary and, further, that it may give rise to unforeseen problems.

Section 123(a), Publication.—We oppose this provision under which an applicant may request publication of a pending application. We would support, however, the publication of pending applications involved in an interference or on appeal, but with allowable subject matter, and third continuation applications, whether or not containing allowable subject matter.

Sections 141-145, Review of Patent Office Decisions.—We urge continuation of existing procedures.

Section 271 (d) and (e), Contributory Infringement.—We oppose this provision because of the deletion of the terms "contributory" and "contributory infringement" and, accordingly, support Section 271(d) and (e) of S. 1042.

S. 2597—Comment Deferred

Section 31, Regulations for Agents and Attorneys.—We defer comment on this matter to those more closely associated therewith.

S. 1042—Preferred Provisions

Section 148, Presumption of Correctness.—We support this provision of S. 1042 provided, however, that terminal clause "and . . . Law" is deleted. We understand that this deletion has been suggested by the Administration.

Section 154(e), Term of Patent.—We support this provision of S. 1042. In addition, we urge that any unreasonable or unusual delay in, and caused by, the Patent Office should also extend the patent term. Acceptance of the twenty year term is based upon the advice of the Patent Office that prosecution will be completed within a promised average of three years.

Amendment 183, Rule of Reason—Licensing.—We support this Amendment to S. 1042.

As indicated above, we have not specifically commented on those provisions of S. 2597 which we favor. We do want to particularly endorse the provisions of Section 271(b) of S. 2597. We believe that a process patent owner should be entitled to appropriate relief in the United States notwithstanding the availability of foreign patent protection.

We also particularly endorse the provisions of Section 184(b) of S. 2597 which would establish the Patent Office as the sole Government agency to grant a license or establish a general license for the filing of foreign applications. Adoption of this provision would eliminate unnecessary details and paperwork.

One other aspect of S. 2597, which we believe merits endorsement, is the absence of any provision in the bill as to in rem invalidity. As indicated more fully in our Statement on S. 1042, we oppose the concept of in rem invalidity, particularly, in view of the problems which it will undoubtedly cause and the uncertainty it would place upon the validity of patents.

In our Statement on S. 1042, we commented upon the subjects of Preliminary Applications and Stand-by Deferred Examination. We understand that the Patent Office is contemplating a procedure under which an applicant may file an informal application, i.e., an application without formal drawings and claims, and thereby obtain an effective U.S. filing date. Formal drawings and claims may be filed within one year. We support this procedure and believe that it will, in many ways, meet certain needs to which the procedures of Preliminary Applications and Deferred Examination were directed.

We have been advised that the Subcommittee intends to prepare a clean bill on this subject, rather than amending either S. 1042 or S. 2597, or any other bills presently pending thereon. Accordingly, we would like to restate our basic position as set forth in our Statement of S. 1042 with respect to any revision of the existing U.S. Patent Laws.

For convenience, the following is as excerpt of that position:

"We urge, therefore, that Section 102 (S. 1042) be revised along the following lines:

- "(1) Provide a grace period of one year.
- "(2) Issue the patent to the first applicant to file.
- "(3) Any applicant may provoke an interference with a granted patent under conditions and regulations to be established by the Patent Office.
- "(4) To the extent possible, adopt a simplified interference practice.
- "(5) In any proceeding in the U.S. Patent Office, an applicant shall be accorded a date of invention no earlier than two years prior to the effective filing date of his application for patent thereon in the U.S. Patent Office."

It is recognized that the limitation of a two year period for proof of priority in interference proceedings may produce problems with respect to citation proceedings and infringement actions insofar as the defense of prior inventorship is concerned. It is thought, however, that such problems will arise very infrequently, and to provide specifically for such problems would only serve to complicate the law. Accordingly, we believe that, in balance, the two year proof limitation is probably the best solution.

AMERICAN ASSOCIATION OF NURSEYMEN, INC.,
Washington, D.C., February 21, 1968.

HON. JOHN L. MCCLELLAN,
*Chairman, Subcommittee on Patents, Trademarks, and Copyrights,
New Senate Office Building, Washington, D.C.*

DEAR MR. CHAIRMAN: The American Association of Nurserymen wishes to go on record as strongly in favor of continued existence of the Plant Patent Act. This Act, which has been in effect since 1930, has led to patenting of approximately 2,700 plant introductions. It has withstood the test of time and is of vital importance to the health of our industry.

Much of the progress and health of our industry can be traced to the incentive offered plant breeders through patent system protection for their developments. We respectfully urge amendment of the Plant Patent Law by addition of the words "or sexually" to extend its protection to breeders of plant material which is reproduced sexually. We feel that the right to patent plants which are the result of sexual reproduction will greatly stimulate research in that area with great benefit to the public.

We hope that the law will be amended in this way as rapidly as possible.

Respectfully,

ROBERT F. LEDERER,
Executive Vice President.

AMERICAN FARM BUREAU FEDERATION,
Washington, D.C., March 26, 1968.

HON. JOHN L. MCCLELLAN,
*Chairman, Subcommittee on Patents, Trademarks, and Copyrights, Committee
on Judiciary, U.S. Senate, Washington, D.C.*

DEAR SENATOR MCCLELLAN: This is to express the position of the American Farm Bureau Federation regarding the Plant Patent law and pending proposals for amendment.

The matter was considered recently by our National Advisory Committees and Board of Directors. The Advisory Committees recommended that the present plant patent provision be continued and that pending amendments to the law be rejected. The Board of Directors approved the Committee recommendations.

In our opinion the protection now provided under the patent law encourages the development of asexually produced plants. We do not believe, however, that it would be in the best interests of farmers and ranchers to extend coverage to sexually reproduced plants. Our inquiry suggests that other forms of protection now available under state laws, such as seed certification, provide adequate safeguards for the developers of new sexually reproduced plants.

I would appreciate your making this letter a part of the record relative to proposed changes in the plant patent law.

Very truly yours,

CHARLES B. SHUMAN, *President.*

AMERICAN SEED TRADE ASSOCIATION, INC.,
Washington, D.C., March 28, 1968.

HON. JOHN L. MCCLELLAN,
*Chairman, Subcommittee on Patents, Trademarks, and Copyrights, Committee
on the Judiciary, U.S. Senate, Washington, D.C.*

DEAR SENATOR MCCLELLAN: The American Seed Trade Association and the National Council of Commercial Plant Breeders would like to request the following letter be placed in the hearing record on Amendment 511 to Section 161 and 163 of S. 1042, a bill "For the general revision of the Patent Laws, title 35 of the

United States Code, and for other purposes" in reply to Secretary Orville L. Freeman's letter dated February 29, 1968.

The Department of Agriculture objects to the amendment on two broad grounds:

1. It would threaten the continued existence of its longstanding program for developing and introducing new varieties of seeds;
2. It is scientifically and legally unsound.

Objection 1

It would appear the true purpose and intent of this amendment has not been properly communicated or understood by the Department.

The Department has long been developing varieties, introducing foreign germ plasm for crop improvement, and releasing them freely to seed producers and to growers. The notable success of this program can be attributed to the free exchange of information, experimental plants, and germ plasm among research workers without fear of misuses of this material. The seed industry does not foresee this program being changed under a patenting system.

The USDA and Agricultural Experiment Stations have in the past ten years placed increased emphasis on basic research with less emphasis on release of finished varieties (applied research). A comparison of the number of varieties released twenty years ago, and the number released in 1967, is not available. But, certain other facts are available. Twenty years ago, there were very few proprietary varieties released by seedsmen because the USDA and Experiment Stations were doing the breeding and releasing the varieties. As seed companies invested in a research staff and facilities, proprietary varieties began to compete with public varieties. As more and more private varieties have been released, equal to or better than public varieties in quality, yield, etc., the need for expenditure of research funds to develop public varieties has been reduced.

In this changing agricultural picture, it has been necessary for government and industry to readjust to a system of complimenting one another rather than one of competition. This change has been slowly taking place, the USDA and the Experiment Stations increasing their scopes of activities in basic research and the seed trade developing and marketing proprietary varieties.

This transition is far from completion because private industry must recoup its research investment if it is to continue in business. As more and more research money is spent by the seed industry, it looks for ways and means of protecting its investment like other industries; therefore, after seven years of study have turned to the plant patent system.

The letter of pages 2 and 3 tries to imply the exchange of germ plasm would be restricted because of the extreme danger of "pirating" breeding material. This is a fallacy in their reasoning because no one could patent "germ plasm" or plant characteristics once pirated. The only patentable material would be a "finished variety."

"Seed producers or nurserymen are then notified and they are free to grow or propagate these new varieties for sale to the public."

* * *

"It has been the policy of the Department of Agriculture, since the enactment of the present Plant Patent Act, not to apply for public service patents in new varieties developed under its research program."

Further, by the quotations above, the letter contradicts itself in that the USDA did not find it necessary to apply for public service patents under the existing Act for asexually reproduced plants. The threat to the Department's breeding program for asexually reproduced plants has not been jeopardized under the program which has been in existence for 38 years. I submit the same condition applies to sexually reproduced plants.

Objection 2 ("It is scientifically and legally unsound")

Letters from twelve of the top industry plant breeders have been filed with the Subcommittee on Patents, Trademarks, and Copyrights, in which all expressed the opinion that patenting sexually reproduced plants are scientifically and legally sound. These letters in themselves disproved the USDA's objection to expanding the Plant Patent Act.

In 1939, the Congress enacted into law the Federal Seed Act (53 Stat. 1275) to regulate interstate and foreign commerce in seeds; to require labeling and to prevent misrepresentation of seeds in interstate commerce; to require certain standards with respect to certain imported seeds; and for other purposes. The

entire administration of the Act is based upon developments and merchandising varieties which reproduce true to type and can be maintained over a period of several years. The definition of variety, as defined in the Act is:

"The term 'variety' means a subdivision of a kind which is characterized by growth, plant, fruit, seed, or other characters by which it can be differentiated from other sorts of the same kind for example, Marquis, wheat, Flat Dutch cabbage, Manchou soybeans, Oxheart carrot, and so forth."

The International Code of Nomenclature of cultivated plants (1958) contains the definition:

"The term 'variety (cultivar)' denotes an assemblage of cultivated individuals which are distinguished by any characters (morphological, physiological, cytological, chemical, or others) significant for the purposes of agriculture, forestry, or horticulture, and which, when reproduced (sexually or asexually), retain their distinguishing features."

Here then is a law of the land, administered within the USDA, which is scientifically and legally unsound if the Secretary's letter of February 29, 1968, should prevail.

Another program, administered by 42 state governments in cooperation with the USDA, is the seed certification program which has been based upon varieties since its inception in 1919. The Seed Certification Standards' publication, No. 20, date August 1963, states the purpose of seed certification:

"The purpose of Seed Certification is to maintain and make available to the public sources of high quality seeds and propagating materials of superior varieties so grown and distributed as to insure genetic identity. Only those varieties that contain superior germ plasma are eligible for certification. Certified seed is high in varietal purity and of good seeding value.

"Varieties eligible for certification have resulted either from natural selection or through systematic plant breeding. In either case without a planned method for maintaining genetic purity, there is grave danger of losing varietal identity.

"Varietal purity is the first consideration in seed certification. * * *

Mr. Chairman, two programs, basic to the agricultural economy of this country, recognize varieties can be maintained and reproduced true to type. Enforcement and implementation of these programs as integral parts of the seed trade would still be maintained, if sexually reproduced plants were patented. *I submit, if the variety concept is scientifically and legally unsound for Plant Patents, it must also be unsound for the Federal Seed Act and seed certification.*

General Comments

In reading the Department's letter one would get the impression that it has the responsibility, not only of policing the industry, but also of protecting the patent holder. This is a fallacy, for it is the responsibility of the Plant Patent Act to protect the patent holder. As a matter of fact, the patent holder realistically must protect himself, and this is the position taken by the patent office.

The patent law as it exists today, and since its inception, has a basic requirement that an item to be patentable must be reproducible. If it cannot be proven to be reproducible, then a patent cannot be issued. The seed industry is willing to accept the responsibility for proving the reproducibility of its varieties, and in fact is requesting this responsibility.

The United States Department of Agriculture and public and private institutions all have the right to reveal or publicize any developments of their research. There is no reason why the United States Department of Agriculture should withhold the information because of the existence of a Patent Act. Actually, this policy of free interchange which USDA has established should and would be continued.

The seed industry, without a form of protection, development of new varieties of foodstuffs will be stifled because the incentive to invest money in research cannot be justified. Hybrid seed corn is a good example of the development of the improved variety. This is an example of a sexually reproduced plant which has the built-in protection and it is comparable to that being requested by the seed industry generally. Filing requirements of a patent application would reveal more about plants to the public than is known today. This knowledge would be available to all research workers in agriculture.

Many large associations are 100% in favor of this amendment. For example, the National Canners' Association have adopted a resolution supporting the American Seed Trade Association on this amendment in their statement to your subcommittee. They have indicated as follows:

"The vegetable canning industry relies on the seed industry for its most basic and vital ingredient, and therefore has an intimate concern for the economic welfare of that industry. We favor legal protection to the patent system because it provides for voluntary participation. It will enable commercial seedsmen to recover the very substantial investments made over extended periods of time required for the creation of the new and unique plant varieties. This protection will encourage private investment, the expansion of facilities, and the professional manpower required to create the many new types of plants that are continuously needed by our industry. In our view, their capability to serve the American vegetable grower and processor, and ultimately the public, will be enhanced."

The American Association of Nurserymen, in a letter to the Commissioner of Patents under date of February 21st, have also added their support for this particular measure. Again, I quote from their letter:

"We respectfully urge amendment of the plant patent law by addition of the words '*or sexually*' to extend its protection to breeders of plant material which is reproduced sexually. We feel that the right to patent plants which are the result of sexual reproduction will greatly stimulate research in that area with great benefit to the public. We hope that the law will be amended in this way as rapidly as possible."

In summary, based upon the Federal Seed Act, the seed certification program and for other reasons—the foregoing discussion clearly reveals in our opinion, the Plant Patent Act could be ably administered by the Department of Commerce and would be workable under the plant patent structures; that confusion would not exist; and the free interchange of information and genetic material among breeders would not be covered under the Act. The patent would only apply to finished varieties, not germ plasma and there exists an urgent need within the United States to supply food for home and abroad; to complete and protect varieties in foreign trade; and to stimulate increased expenditures of funds for research. Let us give industry this responsibility through the patent system.

Very truly yours,

JOHN I. SUTHERLAND,
Executive Vice President.

STATEMENT OF RICHARD C. JONES, PRESIDENT, APPLIED DATA RESEARCH, INC.,
PRINCETON, N.J.

Submitted to Senate Subcommittee on Patents and Copyrights

My testimony is directed to ward Section 106 of the Proposed Patent Legislation and the question of Patent Protection for Computer Programs, which states the legislation historically, theoretically, or practically, I feel each of these presented, to cause a controllable data processor or computer to perform selected operations shall not be patentable."

I am opposed to this proposed section on the grounds that there is no basis for the legislation historically, theoretically, or practically. I feel each of these perspectives merits individual treatment:

Historically, the proposed legislation overturns two actions which had been previously taken:

1. In November, 1965, the British Patent Office held that a computer program invention could be patented.

2. In August, 1966, the U.S. Patent Office published a set of proposed guidelines that set forth some bases for patentability of computer program inventions.

Theoretically, there is no basis for differentiating a computer program from any number of other devices which are currently held to be patentable and for which patents have been issued.

In April, 1967, at a meeting which I attended at the Office of Science and Technology, a representative of the Patent Office explained a new theme regarding embodiment of inventive concepts. It was stated that, if an invention passed the other tests of the patent system, a distinction is made between a computer system invention embodied in hardware and the same invention embodied in a program. Technical experts present explained that a machine containing a programmed control system is the same in all features as that containing special purpose hardware controls: the engineering differences are merely those that

relate to a choice of the more practical or economical embodiment. Consequently, there should be no legal difference since the two forms of the invention are engineering equivalents.

A computer program at work in a digital computing machine is a complex set of coded electrical impulses. It tells the machine what to be. A computer program transfers a set of building blocks, called a computer, into a useful device. It is not proposed that patents be granted on scientific principles or abstract theorems, only the truly inventive *modus operandi* used to arrive at the solution. The principle of leverage is not patentable, but a pair of pliers is.

Practically, there is little doubt that the arbitrary exclusion of computer programs from patentability would seriously impair the goals of the patent system to further the useful arts.

These goals were concisely summarized in the December 1966 report of the President's Commission on Patents which stated:

"The patent system has in the past performed well its *Constitutional mandate to promote the progress of useful arts*. The members of the commission unanimously agreed that a patent system today is capable of continuing to provide an incentive to research, development and innovation. They have discovered no practical substitute for the unique service it renders."

The computer industry is looked upon as one with unlimited growth potential. It is expected to make important contributions to every aspect of our lives in the years to come. But the Achilles Heel of computers is the programming problem. Pick up any newspaper and look at the want-ads for programmers. All forecasts indicate that the demand is increasing at a rate many times in excess of all efforts to train new personnel. Dr. Fubini, an IBM Vice President, (quoted in *Computersworld*—August 30, 1967) called for a radical change in the techniques of programming. "Programming must become a science," he told his audience but went on to admit that presently so little was known about the programming process that large-scale research would be needed before we even know what to measure.

This "large-scale research" is presently restricted to the computer manufacturers because under the interpretation of the existing patent system only such companies can gain economic benefits from computer-program inventions. The computer manufacturer has, as it were, a captive market for his programs: namely, the users of his machines. The computer manufacturer inflates the price of his machines and claims to give a limited set of programs away "free" to his customers (*Electronic News* 4/10/67; *EDP Industry* 3/15/67; *EDP Analyzer* 7/66, p. 9; *Datamation* 6/66, p. 12, 12/66, p. 17, 10/67, pp. 23-24, 205; *Data Processing*, pp. 26-27; *EDP Analyzer* 11/67; pp. 5-7). Under these circumstances, the manufacturer has no need of patent protection for his programs. The very absence of protection, in fact, is one of the greatest assistance to him in perpetuating a lucrative "tie-in" business and extending the economic advantages of his hardware into the systems programming business.

The "Value Added" contribution of "TIE-IN" Software enables the computer manufacturer to mask the price of hardware in the sale of a total system in the hope that he can realize a larger than normal profit. If patent protection were possible for qualified Software Inventions, many Software companies would be encouraged to develop competitive systems without fear of the manufacturers or other taking their inventive concepts and using them with impunity.

The justification of the Presidential Commission for proposed Section 106 and a rebuttal follow:

1. Commission: "Uncertainty now exists as to whether the statute permits a valid patent to be granted on programs."

Rebuttal: If an invention passes the other tests of the patent system and is reduced to practice in the form of a computer program, is it any less an invention than a more expansive embodiment in electronic circuits? There is no necessary reason why this should be.

2. Commission: "The Patent Office now cannot examine applications for programs because of the lack of a classification technique and the requisite search files. Even if these were available, reliable searches would not be feasible or economic because of the tremendous volume of prior art being generated. Without this search, the patenting of programs would be tantamount to mere registration and the presumption of validity would be all but nonexistent."

Rebuttal: The April 1967 issue of *Datamation* magazine (p. 85) on the above stated position reports that the American Inventors Association disagrees with all these contentions. The advantages claimed of the "first-to-file"

system of the proposed bill are applicable to computer programming technology. The computing equipment requested by the Patent Office for searches in other areas of technology could provide meaningful assistance in the area of computer programming. The classification and prior art considerations have been overcome when other new areas of technology were afforded patent protection and they can be overcome in this one.

3. Commission: "It is noted that the creation of programs has undergone substantial and satisfactory growth in the absence of patent protection and that copyright protection for programs is presently available."

Rebuttal: Even if copyright protection for programs is available, and there is strong disagreement among legal people concerning this, it does not afford protection for research and development. Because of the nature of computer software, an opportunistic company or individual could readily gain substantial economic advantage from the inventor and actually compete with him without violation of any copyright protection.

It is not true that the creation of programs has undergone substantial and satisfactory growth in the absence of patent protection. There is a mountain of evidence that the problems in this area have retarded the growth and application of computers since they were invented. It should be noted that this situation continues to worsen and has been the subject of criticism in many business and technical publications (*Fortune* 3/67, pp. 141-142, 10/66 entire article; *EDP Industry* 1/25/67, 3/22/67; *Datamation* 6/66, pp. 17 & 19, 3/67, pp. 17 & 91; *Computerworld* 10/18/67, p. 2—Profit is Not Progress).

The economic burden of this stagnation is born by every taxpayer, most corporation shareholders, and is passed on to the customer in the pricing of almost every type of product. The requirement for the involvement of the computer in virtually every new area of technology, as predicted by *Fortune* (pp. 97, 185, 186, 190) in January of 1967, will never come to pass unless innovation is encouraged in this complex technology.

It is difficult to believe that deliberate Patent Office policy has been established which would be discriminatory in favoring one segment of an industry over another. Isn't the purpose of the Patent System to encourage invention? And, if the preferred embodiment is a computer program and more economical, isn't that in the public interest?

(NOTE.—Supporting documentation can be found in the committee files.)

THE CHICAGO BAR ASSOCIATION,
Chicago, Ill., January 30, 1968.

Re: The Dirksen bill, S. 2597.

Hon. JAMES O. EASTLAND,
Chairman, Senate Judiciary Committee,
New Senate Office Building, Washington, D.C.

DEAR SENATOR EASTLAND: The Chicago Bar Association is supporting S. 2597, the Dirksen Bill, as a desirable revision of the United States Patent Law, as evidenced by the accompanying report. The appendix to the report contains four recommendations which would, in the opinion of the Association, constitute improvements in the Bill, and which we believe deserve the earnest consideration of the Judiciary Committee.

We think the Dirksen Bill provides a workable basis for a compromise between the extreme provision of the Patent Reform Bill S. 1042, previously disapproved by this Association, and the present patent law which clearly requires revision.

This Association is most appreciative of the thorough and careful consideration which the Judiciary Committee of the Senate has given to the complex problems of patent law reform and revision since S. 1042 was assigned to it last Spring. We have every confidence that any bill which the Committee reports to the Senate will be soundly conceived and in the best interests of a workable patent system.

Very truly yours,

JUSTIN A. STANLEY,
President.

COMMITTEE ON PATENTS, TRADEMARKS, AND TRADE PRACTICES—
REPORT ON S. 1042, S. 2164, AND S. 2597

In 1965 President Johnson appointed a commission to study the workings of the United States Patent System and to recommend any changes which the Commission deemed to be needed. The members of the Commission included educators, inventors, businessmen and two patent lawyers.

After about a year and a half of study, including consideration of suggestions from individuals and organizations, the Commission issued its report late in 1966, in which sweeping changes in the United States Patent Laws were recommended. Before any real opportunity for organized comment on these recommendations, the President, early in 1967, sent bills to the Congress implementing nearly all of these recommendations. The Administration bills are S. 1042 and H.R. 5924.

Organized Bar consideration of the problem led to many alternate proposals, of which the most important is the Dirksen Bill, S. 2597, which is essentially the recommendation of the ABA Patent Section. S. 2597 constitutes a compromise, which preserves most of the best features of our present patent system, while incorporating as much of S. 1042 as is meritorious or can be made tolerable. It is our understanding that S. 2597 will be amended by the Senate Committee on the Judiciary to include the revisions that were made at the Honolulu meeting of the American Bar Association.

We have already expressed our unqualified disapproval of S. 1042, in a report which has been submitted to the Judiciary Committees of both the Senate and the House.

We approve of the Dirksen Bill S. 2597 as a compromise, representing the maximum extent of concessions which can be made to the sweeping changes proposed in S. 1042, while still preserving the meritorious features which have made it possible for our present patent system to contribute in such a great measure to technological progress. The Dirksen Bill preserves the principle of awarding a patent to the first inventor, rather than the first to file an application in the Patent Office. Moreover, the Dirksen Bill preserves the year of grace, during which an inventor may prepare and file his patent application, after perfecting his invention and placing it on sale or in public use. These provisions make it possible for an inventor to concentrate his energies upon the commercialization of his invention, rather than having to give premature attention to the filing of a patent application.

As concessions to the many changes proposed by S. 1042, the Dirksen Bill S. 2597 incorporates the principle of measuring the term of a patent as 20 years from the filing date of the application, rather than 17 years from the issuance of the application as a patent. This provision gives the applicant the entire burden of preventing long pendency of the patent application. To lessen the hardship that could result in some cases, we would favor a change in S. 2597 to establish a minimum term of perhaps 14 years from the date of issuance of the patent.

As a further concession to the changes proposed by S. 1042, the Dirksen Bill incorporates the principle of publishing every patent application, before issuance of the patent, to give the general public an opportunity to cite prior art references, or to advise the Patent Office of other grounds upon which the Patent Office might well reject the application. As a safeguard against abuse of these provisions, we would suggest inclusion in Section 136(d) of suitable provisions authorizing the Patent Office, in exceptional cases, to require any person who might file an unwarranted opposition to reimburse the applicant for his expenses, including reasonable attorneys' fees, incurred in defense of a proceeding under this subsection.

In an appendix to this report, we are listing these and other suggested changes in S. 2597. We believe that Congress should give careful attention to all the suggested changes in S. 2597, originating in the organized Bar of elsewhere. Although S. 2597 is the result of a great deal of work by members of the American Bar Association, the bill is not perfect and should be regarded as open to corrective amendments by Congress.

S. 2164 is a bill proposing certain improvements in the present interference practice in the Patent Office. We have already approved this bill by a report submitted to the Judiciary Committees of both the Senate and the House. We believe that the provisions of this bill could be incorporated into the Dirksen Bill S. 2597, to good advantage.

APPENDIX: SUGGESTED CHANGES IN THE DIRKSEN BILL, S. 2597

(1) Revision of the language of Section 151(a) to make it clear that payment of the publication fee is mandatory in order to obtain issuance of a patent.

(2) Inclusion in Section 123 of suitable safeguards to insure that voluntarily published applications meet certain minimum standards as to content and form.

(3) Inclusion in Section 136(d) of suitable provisions authorizing the Patent Office, in exceptional cases, to require reimbursement to a successful applicant for his expenses, including reasonable attorneys fees, entailed in the defense of a proceeding under this subsection.

(4) Provision of a minimum term of 14 years from the date of issue of the patent.

PATENT, TRADEMARK, AND COPYRIGHT LAW SECTION.

THE BAR ASSOCIATION OF THE DISTRICT OF COLUMBIA,

Washington, D.C., February 29, 1968.

Re statement of the Bar Association of the District of Columbia with respect to the patent reform bill, S. 1042.

HON. JOHN L. MCCLELLAN,

Chairman, Subcommittee on Patents, Trademarks, and Copyrights,

U.S. Senate, Washington, D.C.

DEAR SENATOR MCCLELLAN: The following is the position of The Bar Association of the District of Columbia with respect to the Administration's patent reform bill S. 1042. We ask that the Association's position be considered by your Subcommittee and that this letter be included in the records made before the Subcommittee.

The Bar Association of the District of Columbia has a membership of approximately 4,000 lawyers. The Patent, Trademark and Copyright Law Section of the Association includes members who are either in private patent practice, from individual practitioners to firms of substantial size, or are in the employ of corporate patent departments. It can be stated that the members of the Patent, Trademark and Copyright Law Section represent the entire spectrum of inventors, from the individual who works at home in his spare time to perfect an invention, to scientists in the chemical, mechanical, or electrical arts working in the Research and Development Departments of corporations.

Shortly after the Report of the President's Committee on the Patent System was made public, a special committee was formed by the Patent, Trademark and Copyright Law Section to study the recommendations in the Report and submit a report, in turn, to the members. During the course of this study, the Administration's patent reform bill S. 1042 was introduced in the Senate and this bill was also considered by our Committee. A number of resolutions were subsequently proposed in the Committee's Report. At the Annual Meeting of the Association, the members of the Section, who had been provided with the Committee's Report and resolutions in advance, met and discussed the pros and cons of the Committee's recommendations.

A number of resolutions were passed by the members of the Section, and the resolutions were then discussed at a meeting of the Council. Eleven resolutions, all of which had been approved by members of the Section with only a few dissents, were then submitted to the Board of Directors of The Bar Association of the District of Columbia. These resolutions were approved by the Board and form the basis of the position of the Association with respect to the Administration's patent reform bill. The subject of each of the resolutions will be discussed under the appropriate heading below.

ELIMINATION OF THE GRACE PERIOD

The Association is opposed to eliminating or shortening the present one-year grace period within which application may be made for a patent after the public use or sale of the invention or the patenting or publication of the invention.

Under the present law, wherein the inventor has a year after public use or publication of his invention in which to file for a patent, the public directly and immediately benefits, since it is given access to the invention more promptly than would otherwise be the case. Having seen the improved product or having learned of the improved process for producing the product or obtaining a desired result, many members of the public immediately begin thinking of other ways in which

they can improve the product or the process and, many times, patentably improve it. Under our patent system, the incentives are such that whenever a new development comes into the open, others in the field immediately learn about it and, if they believe that the development is patentable, will immediately attempt to design around it. It can be stated, without fear of contradiction, that many patentable improvements are the result of the efforts of others to design around a new product, machine, process, or the like. Many inventors who have made a new discovery want to immediately tell others in the field about it, and this is usually accomplished through the publication of a paper or at the next scheduled scientific meeting. Other inventors would want to build a prototype of the development such as a machine and actually try it in the field to see if it performs in a satisfactory manner. By eliminating the grace period or reducing it to a shorter term, many inventors will be under specific instructions not to divulge their improvement to anyone until such time as the necessary application can be prepared and filed in the Patent Office. This delay can take weeks or even months, depending upon the nature of the information necessary to be included in the application, additional work which may have to be done by the inventor, and the backlog of applications to be prepared by the patent department or by outside patent lawyers. This delay works to the detriment of the public who otherwise would have obtained knowledge of the development at an earlier date. While the research staffs of many corporations throughout the country can readily comply with instructions to keep all developments secret until a patent application is filed, the lone inventor who has no patent guidance and who usually doesn't seek it until after he has made and used his product or machine publicly, or has a story about his development appear in a local newspaper, would be irreparably damaged.

We know of no valid statistics which show that the public is being hurt because of the present one-year grace period or which show that the public would be greatly benefitted if the one-year grace period were eliminated or shortened. On the contrary, we believe that by eliminating or shortening the grace period the public will be at a disadvantage in that disclosures will not be as readily made by inventors to the public as they are at present. Furthermore, the individual inventor or the one without proper patent guidance could be irreparably damaged.

FIRST TO FILE

The Association opposes in principle any change in the present law which would have the effect of awarding the patent only to the applicant who is the first to file his application.

Nothing constructive will be accomplished by having inventors race to the Patent Office. On the other hand, the careful and methodical inventor who reduces his invention to practice and tests it to his satisfaction before proceeding to file for a patent may be needlessly penalized. It is believed that the workload of the Patent Office would be greatly increased under a first-to-file system, thus adding considerably to the cost of the operations of the Patent Office. Many applications would be hurriedly filed with a minimum disclosure in order to obtain a filing date. As additional work was done by the inventor, continuation-in-part applications would be filed until the last-filed application contained all of the disclosure which would support the broad claims to which the inventor was entitled. This is especially true in chemical cases where the Patent Office now refuses to grant broad claims unless the claimed subject matter is fully supported by the disclosure. Representative numbers of compounds have to be tested and found to be suitable for the purpose of the invention in order to support the broad claims. To test such compounds requires time. Under a first-to-file system, the inventor who reduces a species to practice would promptly file an application on the species or a small genus which includes the species. As further work was done by him on related compounds, additional continuation-in-part applications would be filed. Not only would these additional applications create a burden on the Patent Office, but there would also be considerable expense to the inventor because of the filing fee necessary for each application and the attorney's fees for preparing each of the applications.

The principal reason advanced for the first-to-file system is that it will eliminate interferences in the Patent Office between conflicting applications. However, statistics of the Patent Office show that only about two percent (2%) of all applications become involved in interferences. Many of these are amicably settled by the parties without having to go through the testimony stage and without having

to submit them to the Board of Patent Interferences for decision. The very small number of cases which are litigated in the Patent Office and eventually in the courts usually involve a close question of fact or law, or both, and the subject matter of the interference is sufficiently important to the parties to warrant the expense involved.

To eliminate interferences, and actually to eliminate the small number of cases contested to a final decision, the first-to-file system proposed as the solution, while decreasing the workload of the Office in one area, would, in effect, penalize the remaining 98% of the applicants while simultaneously increasing the work load in the Patent Office in another area.

One other problem which would be created by the proposed first-to-file system is the serious if not unconscionable burden it would place on the one who prepares patent applications for filing in the Patent Office. Whose case does he take up first for preparation? Can a delay of one day in filing the application, due to illness, vacation, an emergency, poor mail service, or the like, cause the inventor to lose his right to the patent because another filed a day earlier? Should an effort be made to finish typing an application that evening instead of the next day? Should the inventor be advised to stand by and sign the application as soon as it is completed? Should the application be hand-carried to the Patent Office and dropped into the box before midnight so as to have that day's date given to it? Doesn't this place an inventor located outside of Washington at a disadvantage, particularly if his attorney has to mail the signed application to the Patent Office, thus losing a day or two in the process? Will an inventor who lost an earlier filing date have a course of action against the one who prepared his application if the latter was working on another's application? These are but a few of the questions which would be raised if a first-to-file system were to be put into effect.

SIMPLIFIED PRIORITY CONTESTS

The Association has approved in principle simplification of the present interference practice by 1) issuing a patent to the senior party, and 2) permitting the junior party to initiate an interference within one year after the patent issues.

As stated above, interferences involved only a very minor part, about two percent (2%) of all applications filed in the Patent Office. Many of the interferences which are declared are amicably settled between the parties with a copy of the settlement agreement being made of record in the Patent Office (35 USC 135).

When an interference is declared between a patent and a pending application, the public becomes aware of the proceeding from an examination of the patent file in the Patent Office. Meanwhile, the term of the patent is running. The public knows of the subject matter of the interference, i.e., which claims of the patent are involved, and knows the identity of the other party or parties. However, in those instances where interferences are declared between two pending applications, the public suffers in that it may be several years before the interference is decided and a patent issues to the winning party. During this time, the public may be unaware of the proceeding. Since Patent Office statistics show that the senior party prevails in a majority of interferences, the Association believes that the Patent Office should issue the patent to the senior party as promptly as possible by expediting the prosecution. The term of the patent will then be running during the time the senior party's patent is cited in the junior party's application, one or more claims are copied, and an interference is declared. If, as in many of the cases, the senior party eventually prevails, several years of the patent's life will have expired. The patentee will not have been unduly damaged, since he was in a position to bring actions against any infringers. However, since there are situations where the junior party is the first inventor, the junior party should not be penalized for having delayed in filing his application in the Patent Office. Of course, if the delay has been occasioned by the junior party in that he has attempted to suppress or conceal his invention and was stirred into filing a patent application only because of the activity of the senior party, the courts and the Patent Office would deny the benefit of the earlier date to the junior party, as they have done in the past.

While interference proceedings are time-consuming and sometimes costly to the applicants, the Patent Office has made great strides in the last several years to modify the interference practice so as to shorten the time of the proceeding. Additional steps could be taken by the Patent Office within the present law to further shorten the time and also to further simplify the proceeding without the need for the drastic step of eliminating interferences and awarding the patent to the first to file. It is not reasonable to penalize the approxi-

mately 98% of the applicants who file for patents and who are not involved in any interference proceeding, by having them race to the Patent Office with their applications, in order to eliminate the problem of the remaining 2% of the applicants who do get into interferences.

FOREIGN PUBLIC USE AS PRIOR ART

The Association opposes in principle any change in 35 USC 102 which would include foreign knowledge, use, or sale as prior art.

To enlarge the definition of prior art as suggested in the Administration's bill would be to place a cloud on almost every patent which issues in the U.S. In enforcing his patent, the patentee would never know if somewhere in the world others had prior knowledge of the invention, independently arrived at, or had used or sold a product identical or similar to his invention. The cost of litigation would materially increase if an alleged infringer sought to prove foreign knowledge, use, or sale of an invention which could anticipate the patentee's disclosure. Further, it is not seen how any knowledge by another in a foreign country, or use or sale of a development, device, process, etc., in a foreign country benefits the U.S. public. The public is benefitted only when the new device is introduced into this country or is published in references which are available to those in this country involved in the particular art.

Further, the Association notes that in many industrially developed countries where applications are examined before patents are granted, including Canada, Germany, Great Britain, Japan, and Switzerland, knowledge outside the particular country is not considered to be prior art. The Association can see no need to expand the definition of "prior art" as that term is used today, since such expansion is not in the best interests of the country or of our patent system.

ASSIGNEE FILING AND JOINDER OF INVENTION

The Association approves in principle liberalizing the formalities of filing patent applications to allow owners to file for patents and also liberalizing the provision of the statute with regard to joinder or nonjoinder of inventors.

Liberalizing the present law and giving the owner of the invention the right to file the application will result in many earlier filings of applications, particularly in those instances where the inventor no longer works for the company, or, having left the company, is now unwilling to execute an application, thus requiring the owner to take legal action against the inventor. The burden which the owner now faces, as set forth in 35 USC 118, can be alleviated while, at the same time, reducing the work of the Patent Office personnel who now must consider all of the papers filed by the owner pursuant to the provisions of this section of the law.

One area which presents difficulties for patent lawyers preparing applications involving two or more inventors is in attempting to ascertain the true inventor or co-inventors for all of the subject matter set forth in the application and the claims. Where the co-inventors work in a research department of a corporation, it becomes extremely difficult to ascertain the actual contribution of each inventor to the invention being claimed. By liberalizing the provision of the statute with regard to joinder or nonjoinder of inventors, the preparation and filing of patent applications could be readily expedited and the cost to the applicant considerably reduced. The important factor is to have the patent issue and be made available to the public at an early date. The public is probably less concerned with the individual contributions of each inventor than it is with learning about the disclosure as a whole.

STANDBY AUTHORITY FOR OPTIONAL DEFERRED EXAMINATION

The Association opposes the granting of standby statutory authority to any agency to institute a deferred examination procedure at a later date.

If such deferred examination is believed to be necessary in the future for the successful operation of the Patent Office, the Patent Office should be required to come to Congress at that future date and ask for passage of legislation implementing the proposal. At that time the experience encountered in Holland and Germany, and any other country which may have adopted deferred examination procedures, will be available for consideration by Congress and all interested parties can express their views prior to the enactment of any legislation.

EX PARTE CONSIDERATION OF PRIOR ART SUBMITTED BY THE PUBLIC

Assuming publication after allowance of an application, the Association approves in principle consideration by the Patent Office of patents and publications cited by the public within six months after publication of the allowed application, provided that the applicant has an opportunity, *ex parte*, to rebut any determination of unpatentability and also has the opportunity to amend any claim.

The Association believes that in those instances where an application is published and a member of the public knows of a reference which does, in fact, fully anticipate the published claims, the reference should be and very likely will be brought to the attention of the Patent Office. Whether the public will cite references which do not fully disclose the claimed invention, but which must be modified by one having ordinary skill in the art in accordance with 35 USC 103, is a question which is difficult to answer. However, in those situations where such references are cited by the public, the applicant should have the opportunity to further prosecute his application and amend the claims, if necessary, in order to distinguish over these references. If he can distinguish over the art to the satisfaction of the Patent Office, a stronger patent will subsequently be issued.

APPEALS FROM THE PATENT OFFICE

The Association is opposed in principle to statutory enactment which would make decisions of the Court of Customs and Patent Appeals reviewable by the United States Court of Appeals for the District of Columbia Circuit.

The Association does not believe that the decisions of a five-judge court should be reviewed by a three-judge court of appeals. The Court of Customs and Patent Appeals has been in existence for many years and has decided thousands of patent and trademark cases. While admittedly there have been situations where the decisions of the Court have not been followed by the United States District Court for the District of Columbia or the United States Court of Appeals for the District of Columbia Circuit and, in certain instances, two different positions have been arrived at, these instances have been extremely rare over the years. In fact, this situation is not unlike that which presently exists between the different judicial circuits where the result in one circuit is different from that in another circuit. Where such differences exist, the United States Supreme Court usually grants certiorari and resolves the differences. The same is true in the present situation. If there is a conflict in decisions between the United States Court of Appeals for the District of Columbia Circuit and the Court of Customs and Patent Appeals, the dissatisfied party in either court can file a petition for a writ of certiorari with the Supreme Court.

To unduly burden the United States Court of Appeals for the District of Columbia Circuit by having it also hear appeals from the Court of Customs and Patent Appeals in order to avoid these very few instances of conflict, does not appear to be a reasonable solution. The independence of the Court of Customs and Patent Appeals should be maintained.

LIMITATION ON BROADENED REISSUES

The Association opposes any provisions in the statute which would prohibit the granting of reissue patents with one or more claims broader than those in the original patent.

The present reissue statutes were designed to aid the inventor who through error without any deceptive intention claimed more or less of the invention than he had a right to claim in the patent. Under the present law, the applicant has the burden of showing the Patent Office how this error arose and that it arose without any deceptive intention. This burden is a heavy one for the applicant. However, having satisfactorily carried the burden, the applicant should be permitted to correct his error by way of a reissue patent.

Such errors usually are noted only after the patent issues and usually after the inventor attempts to interest someone in purchasing the patent or taking a license thereunder. Nothing is to be gained by penalizing the patentee for an error in not claiming the invention more broadly. The public is fully protected under the present statute if anyone obtains any intervening rights prior to the grant of the reissued patent (35 USC 252). The patentee, having fulfilled his part of the contract with the Government by fully disclosing the invention (it is to be noted that a reissue application cannot contain any new matter), should be

entitled to correct any error occurring without deceptive intention, in order to fully protect his rights in the invention. The present two-year period from the grant of the original patent, within which the patentee may enlarge the scope of the claims and thus obviate the error, is submitted to be entirely reasonable.

EXPIRATION OF PATENT

The Association approves in principle legislation providing that a patent shall expire twenty years after the filing of the earliest United States application relied upon, provided that in no event will the term of the patent be less than 10 years from the date of the grant.

The Association agrees that the term of the patent shall be twenty years from the date on which the earliest United States application is filed. If the Patent Office can continue to improve the examination procedures in the manner in which it is already so doing, a patent should issue approximately three years after the filing date. Thus, the term of the patent will still be approximately 17 years from the date of grant. However, in those situations where the application is involved in an interference proceeding or any other proceeding in the Patent Office, the Association believes that the applicant should not be unduly penalized for delays which are very likely outside of his control. Therefore the Association suggests that the minimum term of the patent should not be less than ten years from the date of the grant.

PATENT OFFICE FEES

The Association opposes granting the Commissioner of Patents the right to fix fees to be paid in connection with the filing, examination, and issuance of patents, and record relating thereto, designed to effect an overall recovery of a predetermined percentage of the cost of operation of the Patent Office.

The Patent Office, while providing a benefit to the inventors, also provides a benefit to the public. To say that the inventor must pay a substantial part of the cost of running the Patent Office, which part would be left to the discretion of the Commissioner of Patents, is being unfair to the inventor and appears to disregard the benefit which the public receives from the patent system. The Association believes that whenever the cost of operating the Patent Office increases to the point where the Commissioner believes that an increase in various fees should be made, he should have to come to Congress for appropriate legislation, and give the reasons why he believes the fee increase is necessary. This would then provide the public an opportunity to be heard on this point. Congress can then make its decision, based upon all of the facts made known to it at that time, as to whether any increase in fees is justified and, if so, how much the increase should be.

* * * * *

The Bar Association of the District of Columbia stands ready to do its part in assisting your Subcommittee and will cooperate in any way that it can with your Subcommittee.

Respectfully submitted,

JOSEPH A. DEGRANDI, *Chairman.*

STATE BAR OF MICHIGAN,
PATENT, TRADEMARK AND COPYRIGHT SECTION,
February 8, 1968.

Senator JOHN L. MCCLELLAN,
U.S. Senate Office Building,
Washington, D.C.

DEAR SENATOR MCCLELLAN: I am authorized and privileged to transmit to you a Statement from the State Bar of Michigan concerning patent legislation now pending before the Congress. This Statement incorporates certain broad objectives first advanced by the President's Commission on the Patent System in its report to the President dated November 17, 1966. It also expresses special concern and support for certain principles of patent law which it urges be embodied in any new patent legislation. Finally, it declares the support of the Patent, Trademark and Copyright Section of the State Bar of Michigan for S. 2597 and H.R. 13951, now pending, respectively, in the Senate and House Judiciary Committees.

The Patent, Trademark and Copyright Section is composed of approximately 190 patent lawyers. The total membership of the State Bar of Michigan is approximately 10,500. The enclosed Statement, the brevity of which in no way reflects the extent of discussion and debate on the subject, is principally the work product of the elected Council and Officers of the Patent, Trademark and Copyright Section and is supported by the overwhelming majority of the members of the Section. The Council and Officers together form a working body in which seven members are patent lawyers associated with corporations and six are in private practice. This Statement therefore represents a balanced evaluation of the proposed legislation.

Although many of our members have reservations concerning specific provisions of S. 2597 and H.R. 13951, it is our firm belief that these bills represent a sound and strong approach to patent law revision and without question are much to be preferred over all other pending legislative proposals, including specifically S. 1042 and H.R. 5924.

Should you have any questions concerning our Statement or other aspects of our attitude in this matter, please address such questions to my attention. We would be grateful for your thoughtful consideration of this Statement and urge your support of the legislation it commends.

Very truly yours,

A. R. WHALE, *Chairman.*

STATEMENT OF POSITION ON PATENT LEGISLATION BY THE STATE BAR OF MICHIGAN

The State Bar of Michigan commends the efforts of various interested parties and organizations working to improve the effectiveness of the United States patent system through legislation.

The State Bar of Michigan recognizes the fundamental constitutional proposition that a patent system shall promote the progress of the useful arts by securing to investors the exclusive right to their discoveries for a limited time. Any changes in the patent law of the United States must be consistent with this constitutional mandate.

The State Bar of Michigan believes that a patent system of the type under which this nation has prospered for over 130 years continues to provide a stimulating climate for research, development and innovation, thereby contributing to the progress and technological leadership which is singularly ours.

Nevertheless, the State Bar of Michigan believes that some changes in the patent system are desirable to improve its overall effectiveness in a changing world.

In view of the foregoing, the State Bar of Michigan endorses the following general objectives and specific patent law principles:

OBJECTIVES

1. To raise the quality and reliability of United States patents.
2. To shorten the pendency of patent applications in the Patent Office.
3. To accelerate public disclosure of technological advances.
4. To reduce the expense of obtaining and litigating patents.
5. To make our patenting procedures more compatible with those of other major countries wherever consistent with the objectives of the United States system.
6. To prepare the patent system for an exploding technology.

SPECIFIC PATENT LAW PRINCIPLES

The State Bar of Michigan expresses special concern that the following principles be preserved for the continued effective functioning of the United States patent system and urges that any new patent legislation be consistent with these principles:

1. *Grace period*

An inventor should continue to have a grace period of one year from the first publication, public use, or sale by the inventor within which to file a patent application.

2. *Interferences*

The first inventor is the one to whom a patent should be granted. The basic tenets of the present Patent Office interference procedure should be retained.

This procedure will continue to enable the Patent Office to determine which inventor is first where two or more inventors have filed patent applications claiming the same invention.

3. Patentable subject matter

Any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, is patentable subject matter. Computer programs or any other new technology should be handled in accordance with this principle.

4. Examination of patent applications

All patent applications should continue to be examined on their merits as soon after the filing thereof as possible. There should be no deferred examination.

5. Burden of persuasion

In determining whether an invention meets the statutory requirements for patentability, the Patent Office should retain the burden of showing that the invention is not patentable.

STATEMENT OF POSITION ON PATENT LEGISLATION BY THE PATENT, TRADEMARK, AND COPYRIGHT SECTION OF THE STATE BAR OF MICHIGAN, JANUARY 26, 1968

The Patent, Trademark and Copyright Section of the State Bar of Michigan has thoroughly studied and evaluated the various bills for patent law revision now before the Congress. It is the firm conclusion of the Section that Senate Bill 2597 (House of Representatives Bill 13951), drafted by and introduced at the request of the American Bar Association, is the bill presently most consistent with the foregoing statement of objectives and principles. The Section therefore urges passage of S. 2597 and H.R. 13951 as in the best interests of our nation's continuing progress under an effective incentive system of patents.

A. R. WHALE, *Chairman*.

THE ASSOCIATION OF THE BAR,
OF THE CITY OF NEW YORK,
New York, N.Y., March 9, 1968.

Re bills for revision of the patent laws: Especially S. 1042 and S. 2597.

Hon. JOHN L. MCCLELLAN,
Chairman, Subcommittee on Patents, Trademarks, and Copyrights, Committee on the Judiciary, Senate Office Building, Washington, D.C.

DEAR SENATOR MCCLELLAN: The Association of the Bar of the City of New York has charged its Committee on Patents, for whom I am writing, to examine pending patent legislation and in the name of the Association to make recommendations about such legislation and to promote or oppose it. Accordingly, very extensive consideration has been given to the pending bills for general revision of the patent laws, especially S. 1042 and S. 2597, as well as to the underlying Report of the President's Commission on the Patent System, and we therefore take this opportunity of presenting the following views, for our Association.

These bills have largely been prompted by the proposals of the President's Commission, which performed a valuable public service in studying the patent system and in pointing out areas or subjects where improvement might be desirable. Credit should nevertheless also be given to the less publicized but very valuable studies which your own Subcommittee has been pursuing in this field for many years. We have confidence that the Congress will now perform a like service of great value, in effectuating a revision of the patent laws in a manner consonant with the best interests of the public as well as inventors, under the Constitutional aim of promoting "the progress of the useful arts."

It is understood that the Department of Commerce, although originally supporting S. 1042, as *in toto* requisite to implement the Commission's Report, has more recently indicated a modification of its views in a number of areas, or a willingness to accept a modification of several proposals in S. 1042, as expressed for example in a letter to Senator Eastland for the purpose of comment on S. 2597, copies of such letter having been released on January 24. Indeed we understand that it will now very likely become a task of the Congress, exercised for the Senate in the first instance by your Subcommittee, to frame a revised bill in the light of all comments received. The views stated below for our Association, e.g. on S. 1042 and S. 2597, are therefore expressed in the foregoing context and in the earnest hope that they may be of some assistance.

Since much discussion of the bills has been categorized in accordance with the numbered topics of the Report of the President's Commission, we shall conveniently do so here, e.g. by referring for brevity to Subjects I, II, III and so forth, meaning the corresponding recommendations or sections of the Report.

SUBJECT I

(A) PRIORITY OF RIGHT TO A PATENT

Section 102 of S. 1042, in contrast to present law and S. 2597, prescribes an absolute first-to-file system but it is understood that the Department of Commerce is no longer insisting upon so rigid a rule.

We welcome this more moderate view, because we are opposed to an absolute first-to-file principle for the granting of patents. We believe that such a rule, predicated the inventor's right on filing date alone, would substitute a race to the Patent Office for the orderly and complete development of inventions that has long been the foundation of patent-stimulated technology in this country. Extreme urgency for filing applications would only result in large numbers of half-baked and speculative disclosures, which far from advancing the arts would uselessly clutter the published records and would fail to meet the true spirit of the patent system, namely the granting of limited exclusive rights in return for the contribution of practical advances in technology.

A first-to-file system would discriminate badly against the inventor or industrial group of limited means, who could not compete with the vast resources of large companies in a race to file applications on a basis of expert guesswork or intensified experimentation. Neither the avoidance of the relatively few interference contests that now arise, nor a desire for uniformity with foreign patent procedures seems to justify upsetting a system that has been helpful to inventors and has provided the public with developed, workable disclosures. Indeed it is common experience that many foreign patents are so meager and unsubstantiated in their teachings as to be valueless,—in large part because of rigid filing time requirements.

A basic difficulty of a first-to-file scheme is that two rival inventors, unknown to each other, are each faced with the deadline of the other's filing date, which neither can possibly predict: to impose a time limit that is absolutely critical yet entirely unknown seems unique in the law and unfair to both parties, as against the equitable procedure of determining their rights by their actual dates of invention.

We agree with the concept that there ought nevertheless to be a time period, prior to an application filing date, beyond which the inventor should not be accorded a date of invention. It is understood that the Department of Commerce is proposing an interval of one year, but we believe that a period of *two years* is not only reasonable and fair, but is basically requisite in order to obtain the full benefits of a time for testing, perfecting and appraising an invention.

In numerous fields adequate experimentation, construction and test of devices, determination of chemical, agricultural, biological, medical or other effectiveness (often requiring seasonal or long-continued testing), as well as informative exploration of alternatives and assessment of results can well take all of this time, all the more so in the situation of the inventor or company of limited resources.

Two-year priority period

For the above reasons and for the sake of getting complete, workable inventions into patents, we think it clear that a two-year priority interval should be available to the inventor.

It is understood, moreover, that the American Chemical Society—which represents thousands of research workers—has stated, in considering the present legislation, that a minimum of two years before the filing of a complete patent application is necessary to achieve the goal of complete and useful technical disclosures in patents.

Many years ago, in advertising to an inventor's need to test his invention, the Supreme Court remarked (*Elizabeth v. Pavement Co.*, 97 U.S. 126, 135):

"If durability is one of the qualities to be attained, a long period, perhaps years, may be necessary to enable the inventor to discover whether his purpose is accomplished."

Even more pertinently the Supreme Court went on to state, in that case (page 137):

"It is sometimes said that an inventor acquires an undue advantage over the public by delaying to take out a patent, inasmuch as he thereby preserves the monopoly to himself for a longer period than is allowed by the policy of the law; but this cannot be said with justice when the delay is occasioned by a *bona fide* effort to bring his invention to perfection, or to ascertain whether it will answer the purpose intended. His monopoly only continues for the allotted period, in any event; and it is the interest of the public, as well as himself, that the invention should be perfect and properly tested, before a patent is granted for it."

Summarizing, we submit that priority of invention should be retained but limited as follows: For the purpose of obtaining or maintaining a patent claim an applicant or patentee shall not be accorded any date of invention, whether of conception or otherwise, that is earlier than two years before his earliest filing date in the United States; acts or activity prior to such time may be proved and considered, but shall not be deemed to establish any date of invention earlier than such time. It is noted that the foregoing is in effect expressed in Section 135(e) of another pending bill for patent law revision, namely S. 1691.

With any enactment maintaining a first-to-invent system there must be provision for determination of so-called interferences, and we shall deal with this question at another place in this letter.

(B) ONE-YEAR GRACE PERIOD

Again, it is understood that the Department of Commerce does not now insist on the provision of S. 1042 that would eliminate the present one-year grace period after publication or public use. We agree that the one-year interval should not be discarded; it has been and can continue to be of significant benefit, especially to individual inventors, who may even need to effect some marketing or publication of their inventions or may have to risk publication by others, in order to obtain backing or to judge the value of having a patent application prepared.

Reliance on limited provisions for overcoming disclosures made in violation of some obligation to the inventor is no answer to the problem; actual breach of such an obligation would be hard to trace in many cases. We trust that essentially uniform support will now be found in favor of retaining the one-year period of grace.

(C) FOREIGN KNOWLEDGE, USE, AND SALE

Extension of the concept of "prior art" to include public use, sale or other unrecorded public knowledge in foreign countries, as contemplated by Section 102 of S. 1042, and as contrasted with present law and S. 2597, could place an intolerable burden on patent owners and would lend uncertainty to the status of every patent. While it may be reasonable to charge inventors with knowledge of what has become available to the public in this country, the time has not yet arrived when there can be a like imputation as to activity in remote corners of the earth. Again it is understood that official insistence on this widening of the area of prior knowledge and use has been withdrawn, and we believe it a wise conclusion to retain the territorial limitation of the present law.

Patents with foreign filing dates

We do favor, however, the change, implicit in Section 102 of S. 1042, to the effect that for purposes of Section 102(e) of the existing law, a patent (or published application) of the United States which has the priority of a foreign filing date may be said to speak from its earlier foreign date rather than from its date here. This should only occur, of course, where the benefit of the foreign filing date accords with other provisions of law and the requirements of a priority claim (including the deposit of a copy of the original foreign application) have been satisfied.

Whereas the present law has been interpreted as forbidding reliance upon such a foreign filing date for so-called reference purposes, we agree that the above change would be fair and equitable.

SUBJECTS II AND III

Assuming that the one-year grace period and at least the modified priority-of-invention system which we have discussed above are to be retained in the law, it is believed that statutory provision for preliminary applications is unnecessary, as likewise any special treatment of publications derived from an inventor.

SUBJECT V

The principles enunciated by the President's Commission regarding filing applications by assignees and naming of joint inventors are approved, and the provisions of S. 1042 intended to implement such recommendations, i.e. Sections 111, 115, 116 and others that may be related, are specifically approved. It is apparent that these provisions will afford a welcome liberalization of the law, in the technicalities of filing patent applications and in the area of determining or defining joint inventorship.

SUBJECT VI

Sections 119 and 120 of S. 1042 would make it an absolute requirement to claim the benefit of an earlier foreign or United States application at the time of filing the application that is entitled to such priority. This seems unduly strict. Where a series of related inventions are involved in a continuing project and patent applications must successively be prepared and filed for them, often on an urgent basis, it can be very difficult always to keep in mind the exact relations among the disclosures. Furthermore the originators of applications coming from abroad have only an incomplete knowledge of all the intricacies of United States patent practice, and a rigid priority rule represents another area where mistake can be made.

Thus with such a rule valuable rights could easily be lost by mere accident or inadvertence. Indeed this change to a rigorous deadline would mean an increase in the formalities of patent application papers, whereas other parts of the bill (S. 1042) are intended to simplify them.

We therefore urge that the provisions of the present law as to the time of claiming priority (in 35 U.S.C. 119, 120) be retained. Of course, a fairly early designation of previous applications is important for the work of the Patent Office, but it is suggested that this might be readily covered by Office rule, i.e. regulation, so that a balance could be obtained between the needs of the Office and a reasonable leeway for applicants.

SUBJECT VII

PUBLICATION OF APPLICATIONS

S. 1042 provides for mandatory publication of all patent applications 18 to 24 months after filing, whereas S. 2597 contemplates publication only after allowance of all claims, it being understood that the Department of Commerce is now inclined to agree with some intermediate practice, namely awaiting allowance except when an appeal or an interference proceeding has been initiated.

We support the principle of getting applications published as early as is fair and practicable, and propose that an application be published (provided a period of 18 months or more has elapsed) at a time not earlier than 90 days after notice has been given to the applicant that at least one claim of the application has been found allowable. This would seem to be a fair basis for publication, but in any event the inventor should not be required to make a disclosure for the benefit of the public until he has some assurance, by partial or complete allowance, that he will ultimately receive a patent of suitable scope.

As indicated below, we see no reason why applications involved in interference should not be published, but in appeals where no claim has been allowed, the principle of affording an inventor the option of non-disclosure should be received. No patent would be violated by circumstances beyond his control. Delays in appeals are largely the result of the backlog of work of appellate tribunals—a more logical remedy being to clear up the true source of delay rather than to penalize the inventor.

Of course, whatever publication procedure may be adopted, there should always be some reasonable notice to the applicant so that he can, if he wishes, avoid publication by abandoning his application.

We also approve provisions of the pending legislation whereby an applicant may at any time voluntarily seek publication, subject to the application being found in proper formal condition.

SUBJECT VIII

CONTINUATION AND SIMILAR APPLICATIONS

We urge adoption of Section 120 of S. 2597, imposing no limit on the number of sequential applications through which the benefit of an early filing date might be obtained. This provision can be of advantage to inventors, particularly in the course of continuing research, and would serve to encourage the best and most complete disclosure in an ultimately issued patent. Such liberality is of special need where development of the entirety of a series of inter-related, inventive advances may require a prolonged period.

At the same time, adoption of a patent term running from the original filing date will effectively dispose of abuses such as have been suggested to arise under present law where the patent term does not commence until grant. It is understood that because of this change in patent term the Patent Office may well assent to Section 120 of S. 2597 in the above respects.

SUBJECT IX

Standby possibility of optional deferred examination (Chapter 18 of S. 1042) does not seem to afford an advantage consonant with this purported grant of authority. The merit of a deferred examination system has been questioned and it would appear that this is a topic that at best should be resolved by the Congress only after need for such system has been established and only after the effects of like systems in foreign countries might be better appraised. It is understood that the Patent Office, which has achieved highly commendable results in expediting its work of examining patent applications, now feels that there is no basic need to insist on standby authority of this sort.

SUBJECT X

BURDEN OF PERSUASION

It is our view that Section 137 (of S. 1042) should not be included in this or any revised bill. While an applicant will always try to make such presentation as will be persuasive of the patentability of his invention, the explicit provision of Section 137 is at most unnecessary and may well introduce ambiguity, i.e. in the meaning of this novel language of the "burden of persuading the Office". With respect to the so-called rule of doubt (which many deem meritorious) it is understood that the Patent Office is now following a practice of declining to grant patents where patentability is not reasonably clear, and it would seem that if there is any need for confirming the principle followed by the Office or for adopting some other principle, this can surely be done by judicial decision in due course.

SUBJECT XI

REEXAMINATION AFTER PUBLICATION

We support the principles of subsections (a), (b), (c) and (e) of Section 136 of S. 1042, and particularly as improved in and by subsections (a), (b), (c), (e) and (f) of Section 136 of S. 2597, namely that there should be an opportunity for third parties to cite and explain prior art that would appear pertinent to a published application. It is urged that subsections (a) and (b), for example in S. 2597, should in effect be combined, i.e. to provide that in support of any notification of prior art (whether under circumstances that would merely permit or would require its consideration) the party citing it should provide a written explanation of the alleged pertinence. Such requirement would tend to limit the notices under this section to matters of at least prima facie substance, and would obviate the nuisance and harassment of long lists of patents that might be largely irrelevant.

We do not believe that subsection (d) of Section 136 of either bill has a proper place. On the one hand, statutory authority for such proceedings opens the inventor to protracted harassment and delay, while adjudication of such issues is better achieved in patent litigation of conventional sort, if and when it arises, with the highly developed machinery of the courts for handling contested issues of fact. Indeed we are inclined to feel that the responsibilities of the Patent Office in inter partes matters should be reduced rather than enlarged, thus removing such burdens from the Office.

To be specific, we recommend adoption of subsections (a), (b), (c), (e) and (f) of Section 136 of S. 2597, with the suggested modification of subsection (a)—i.e. to require an explanation in writing—and with omission of subsection (d) and the latter part of subsection (e) that only relates to subsection (d).

SUBJECT XIII

PRESUMPTION OF CORRECTNESS

We agree with the first half of Section 148 of S. 1042, reciting this presumption for Patent Office decisions, but we believe the second half of the section (speaking of lack of substantial basis or of non-accordance with law) is at least unnecessary and introduces ambiguity or an undue emphasis that is capable of misinterpretation.

SUBJECT XIV

APPEALS FROM THE PATENT OFFICE

We do not agree with either the provision in S. 1042 for appeals from the Court of Customs and Patent Appeals to the Court of Appeals for the District of Columbia, or the provisions in S. 2597 establishing trial parts or tribunals within the C.C.P.A. for cases that now arise, for example, under Section 145 of 35 U.S.C.

The addition of a further appellate court, superior to the C.C.P.A., makes an unduly long and burdensome chain of appeals. It is believed that the Court of Appeals of the District of Columbia has not had unusual experience in patent infringement cases or other litigation that might give it special qualifications. Moreover, situations of disparity in rule of law between the two appellate courts in question have been relatively few, and it would seem that in instances of significant disagreement, the issue can be readily resolved—indeed sooner rather than later—by the Supreme Court.

We also have serious doubt of the wisdom of establishing trial parts or terms within the framework of the Court of Customs and Patent Appeals, as contributing anything significant in simplifying or improving the trial of issues of patentability. In short, we recommend retention of the system established under the present law, for example as in Sections 141, 145 and others of 35 U.S.C., a system that has served patent applicants and the public in a reasonably effective manner.

SUBJECT XVI

BROADENED REISSUES

We support the provisions of Section 251(c) of S. 2597, limiting applications for broader claims to a period of one year, except for copying a patent claim to provide a basis for interference. This appears to be a fair middle ground between the abolition of broadened reissues—which in proper cases serve to correct injustice arising from a patentee's failure to appreciate the true nature of his invention—and the continuance of a possible source of abuse, or a source of uncertainty in issued patents. It is understood that the Department of Commerce is inclined to support this provision.

SUBJECT XVII

INTERIM LIABILITY

We agree with the principle, embraced in Section 273 of S. 1042 and in corresponding provisions of S. 2597, whereby the owner of a published application may have some relief against parties who might infringe before a patent can be issued. We have in mind that at least some indication of allowability of subject matter should have occurred prior to publication and that relief should be conditioned on notice to the infringer and be limited to acts occurring thereafter. We urge that the notice should not be required to specify the manner in which the accused acts constitute practice of the claimed subject matter. This is traditionally unnecessary in notices of infringement; the accused party will know what he has made or used, and should have no difficulty in reading the patent claims and coming to a conclusion regarding their applicability.

SUBJECT XVIII

TERM OF PATENT

We fully endorse the provision that the patent term should extend twenty years from its earliest effective United States filing date, for example as expressed in Section 154 of S. 1042. We recommend, however, an amendment to state that in no event shall the term of a patent be less than ten years from the date of the grant. On the one hand, this safety provision would not seem to open the system to abuses by long, deliberately maintained pendency of applications—experience indicating that anything of this sort could not likely extend for even as much as ten years—while on the other hand there would be relief for cases of genuine hardship, as where an applicant through no fault of his own and because of protracted interference or other proceedings might be kept in the Patent Office for an unconscionably long time. Any remedy by enforcing interim liability is limited, yet a blameless patentee might find himself left with only a few years of full patent protection.

SUBJECT XX

TERMINAL DISCLAIMER

We agree with the principle, which is part of Section 253(c) of S. 1042, that a terminal disclaimer should not relieve a situation of true double patenting.

SUBJECT XXI

IMPORTATION

A remedy for the protection of a patent process against importation of products made abroad by such a process is a needed addition to the law, consonant with the practice in a number of other countries. It is urged that the provisions, in this respect, of Section 271(b) of S. 2597 afford a fair and equitable result, omitting the limitations in the corresponding section of S. 1042 as to purposes of trade of industry and as to unavailability of patent protection in the foreign country. Large but responsible institutional users, outside the area of trade or industry, should not be allowed to participate in diminishing the fair return of a patentee for his inventive contribution, while the stated qualification as to unavailability of patent protection abroad seems at best ambiguous or indefinite and to be an unfair limitation, putting an undue burden on United States patentees to seek patents in practically every foreign country.

SUBJECT XXIII

IN REM INVALIDITY

The principle that an adjudication of invalidity should have an *in rem* or estoppel effect appears to have considerable merit and it is therefore supported. We do not believe that the same principles should apply to adjudication limiting the scope of a claim, and indeed do not understand that the President's Commission contemplated such a rule. Whereas an adjudicated patent claim is either valid or invalid in the simplest possible terms, experience indicates that different accused infringers seldom have made exactly the same article or practiced exactly the same method. It might be very difficult to define, for the sake of a second action against another party, exactly what limitation of scope was imposed on a patent claim in a prior suit, and to what extent analogous principles might be held to apply in the later litigation. In short, this extension of doctrine would seem to promote rather than reduce uncertainty and would scarcely reduce law suits.

SUBJECT XXIV

CIVIL COMMISSIONERS

It is understood that the benefits sought to be attained by establishing special commissioners in patent cases are now thought likely to be accomplished better by means more generally applicable to court operations. We do not believe that creation of special officers for patent litigation would offer special advantage.

SUBJECT XXVI

STATUTORY ADVISORY COUNCIL

Section 15 of S. 1042, establishing such a council, appears to be worthwhile.

SUBJECT XXVII

PATENT OFFICE FINANCING

We disagree with the provisions of Section 41 of S. 1042, whereby the Commissioner of Patents would have unlimited authority to establish all patent fees, subject only to a vague limitation in "overall recovery" of operating costs. The principle of delegating this blanket authority, in an area of great sensitivity and importance to inventors, seems unsupportable. It is of very recent memory that your Subcommittee and the Congress, and indeed in small part our own Association and Committee, toiled long and vigorously with the problem of patent fees, in an effort to arrive at what everyone felt was a fair and equitable schedule. The very nature of the wide interest then elicited in the problem demonstrates that the setting of patent fees is of public importance and should remain for the judgment of the Congress. We trust that this section will be deleted, in favor of the present provisions.

INTERFERENCES

Assuming that a priority-of-invention system is to be retained, as we think it should be (e.g. on the two-year basis of invention date), a mode of handling interferences or priority contests between rival inventors must be continued in the law. A system which permits issuance of a patent to the "senior" party, i.e., the applicant with the earliest effective filing date, regardless of the possibility or pendency of interference proceedings, is presented in S. 2597 (Section 137), and we support this principle; indeed such a system seems generally and perhaps officially regarded as preferable (there being none in S. 1042) over anything that would delay the senior party's patent.

We further support the principle, which the Patent Office favors (see our remarks under Subject I. above) that all applications involved in interference should at least be published, e.g., once the proceeding is under way.

We favor, however, two modifications of the system contemplated by Section 137 of S. 2597, namely (1) that initiation of an interference need not await grant of a patent to the senior party but can start as soon as either party's application has been published, and (2) that the best forum for the contest is a court. There is no reason why the proceedings should be delayed for any time after the conflict has appeared; the interest of the public as well as the parties is best served by getting the contest under way, provided that if not already patented, the senior party's application proceeds to patent issuance.

Much criticism of interferences has been occasioned by the unavoidable protraction of them in the Patent Office, including the legal maneuvering of numerous motions and the taking of testimony by long sessions of depositions for each side. It is believed that by requiring an interference to take the form of a civil action in a Federal Court, the Patent Office will be relieved of the burden of inter partes proceedings, and the job of controlling the presentation of the parties' cases, as well as the ultimate adjudications of fact, will be most effectively attained under the rules, practices and experience of a court.

Bearing in mind that a variety of situations must be accommodated, including that where the application of the "junior" party (having the later filing date) may have been inadvertently published or patented first, we therefore urge that the provisions in pending legislation (or present law) be modified to accord with the foregoing.

Specifically, when the Commissioner of Patents finds that an application of one party interferes with the published application or patent of another he would declare the existence of interference, providing the junior party has made a prima facie showing of a date of invention earlier than the filing date of the senior party. Thereupon the junior party is given a time, e.g. six months, wherein he may file suit against the senior party, in a District Court of the United States, to determine the issue of priority.

Any involved application which has not yet been published should proceed to publication, and if not already a patent, the senior party's application should be prosecuted to become one. Pending the litigation, copies of any patents that are

involved in it (whether junior or senior) should be marked to show the fact. Venue of the suit can be as now provided in 35 U.S.C. 146, the current provision for interference litigation, but an option could be included, giving either party the right to put the suit in the District Court for the District of Columbia.

If the junior party fails to proceed or to prosecute the suit, the consequences should be the same as if the case had been decided against him. The effect of decision in the suit, on priority, can be the same, respecting further acts of the Patent Office, as is now provided in 35 U.S.C. 135(a).

We believe that the foregoing, under which there would be no inter partes proceedings in the Patent Office at all, would promote and expedite determination of the issues of fact.

It has recently been suggested, on behalf of the Patent Office, that the present law discriminates against foreigners in forbidding proof of acts in foreign countries to establish a date of invention. We think this situation might be modified to the extent of allowing proof of the making of an invention in another country that extends similar privileges to inventions made in the United States. We think there is considerable logic in thus limiting proof of foreign acts of invention to situations of reciprocity. International uniformity of patent practice being a desideratum, a provision of this sort may induce other countries to adopt a priority of invention system, whereas it is difficult to see why a foreign inventor should be accorded privileges of a greater sort than United States inventors can obtain in the foreigner's country. It is urged, moreover, that there be some requirement that any proof of acts in another country should be presented within the United States, i.e. by testimony taken here.

In conclusion, we respectfully submit that there is much of value in each of the pending bills, S. 1042 and S. 2597, and we hope that our comments in this letter will be found helpful, especially should a re-draft of one of the bills be undertaken.

Very truly yours,

ROBERT S. DUNHAM,
Chairman, Committee on Patents.

THE ASSOCIATION OF THE BAR
OF THE CITY OF NEW YORK,
New York, N.Y., March 18, 1968.

Re bills for revision of the patent laws: especially S. 1042 and S. 2597.

HON. JOHN L. MCCLELLAN,

Chairman, Subcommittee on Patents, Trademarks & Copyrights, Committee on the Judiciary, Senate Office Building, Washington, D.C.

DEAR SENATOR MCCLELLAN: Supplementing our letter of March 9, 1968 that deals with many areas of these bills, we would like to present the following, similarly-referenced addendum, being our views on some other specific aspects, expressed on behalf of the Association of the Bar of the City of New York.

SUBJECT XV

Revocation or cancellation procedure (Section 257 of S. 1042) should be omitted from the pending legislation, especially in view of the opportunity granted third parties to cite prior art against published applications under Section 136 of either bill. Although we note areas of the concept of Section 257 that might well be the subject of further and careful study, e.g. as to time limits, fees and penalties, the content and nature of the proceedings, the possibility of public notice, and whether a petitioner's previous citation of the same prior art should bar his petition, our view is that this drastic revocation procedure is basically inadvisable, at least without convincing evidence, from actual experience, that Section 136 has proved inadequate for essentially the same purpose. So-called opposition procedures are regarded by many as suspect because of the chance of abuse, and we believe that Section 136 represents an ample present experiment in this area new to our patent system.

DEFINITION OF PRIOR ART

Attempts in the present bills to restate Sections 102 and 103 of existing law (35 U.S.C.) or to re-define "prior art", require careful scrutiny and, we submit, some revision in one instance or another, in order to assure expression of what are believed to be equitable and accepted principles.

(A) "SUBJECT MATTER KNOWN OR USED BY OTHERS * * * BEFORE THE INVENTION THEREOF BY THE INVENTOR * * *"

It is urged that such language (in Section 100-h-2 of S. 2597) or any like it for defining this area of prior art that is distinct from publication and from matters of public use and sale, is unduly and unfairly broad in its term "subject matter", even though it may impliedly be limited to prior knowledge of at least some public nature. Whereas present 35 U.S.C. 102 denies a patent if "the invention was known or used by others" or if "the invention was made * * * by another", the provision quoted from S. 2597 would extend the definition of prior art to include *unpublished things* which might be mere speculative conceptions that fail to constitute meaningful increments of technology.

Heretofore it has been, we believe, the proper intent of the law that anything *not recorded in a published medium* or on its way (in a patent application) to become such, or not on sale or tangibly in commercial use, should not be considered to represent a prior contribution to the art for any purpose against a patent application, unless it had (or came to have, with diligence) the substance and practicality connoted by the term "invention", implying reduction to practice when necessary. Any other rule would reduce the incentive of inventors and industry to invest time and money in careful development toward ascertaining whether an idea "will answer the purpose intended" (97 U.S. 126, 137).

We therefore urge that the principle of excluding mere unpublished ideas, or incomplete experimental uses, from the prior art should be continued, and if necessary, clarified; if prior art is to be defined as such (e.g. in S. 2597), this branch of it should be specified not as mere "subject matter" but as "an invention known or used by others in this country * * *".

(B) "PRINTED PUBLICATION"

Wording in the pending bills would seem to extend this concept to modern media of permanent, distributable recording (e.g. microfilm, computer print-out, and the like, as suggested by the President's Commission) while at the same time prescribing availability to the public. Nevertheless, we have some concern that the language of the bills might either raise difficult questions of interpretation (S. 1042) or fail to depart adequately (S. 2597) from existing law—which is replete with anomaly and inconsistency in construing 35 U.S.C. 102 (a) and (b), for example as noted in *In re Tenney*, 254 F. 2d 619 (C.C.P.A. 1958).

Our recommendation is that: instead of reference to a "patent or publication in this or a foreign country reasonably available before * * *" in Section 100-h-3 of S. 2597 the wording be "subject matter described in a published medium in this or a foreign country before * * *"; or alternatively that "patented or described in a printed publication" in Sections 102 (a) and (b) of the existing law (35 U.S.C.) be replaced by "described in a published medium".

Thus what is described in a "published medium" becomes prior art, clearly and simply. The word "published" incorporates the requirements of access, dissemination and announcement that have been imputed by case law to the existing statutory "publication", while the word "medium" obviates the limitations and inconsistencies of the term "printed" publication and would clearly embrace typewritten documents, microfilm, tape recordings or any other tangible form of expression that is non-fugitive in nature. A typewritten Australian patent application, laid open to public inspection, or a typewritten Argentine patent could thus be found to represent a "published medium" just as effectively as a typewritten thesis in a university library. Please note that in keeping with S. 1042 we omit the ancient word "patented": secret or unobtainable patents should never be held to contribute to technological literature, while the simple but broad category of "published medium" is ample to include all patents (printed or not) that do in fact so contribute, and properly for what they describe rather than merely "patent".

(C) SECTION 103

This section of S. 2597, apparently to codify a decision that anything *published* more than a year prior to an applicant's filing date should be deemed prior art, recites the earliest time for determining obviousness over "the prior art" as a time "more than one year prior to" the filing date. We are gravely concerned that such definition will connote—improperly, we believe—the bringing into the prior art, of a patent or published application issued less than a year before the applicant's filing date (or not even until after such date), simply because such

patent or published application may itself have a filing date earlier than the one year interval, and *without regard for the requirement in Section 100-h-1 of S. 2597 or the analogous requirement in Section 102(e) of the existing law, that no such patent (or published application) is pertinent unless its application was filed before the applicant made his invention.*

That is to say, we submit that any rewording of Section 103 should make it very clear (and we are not sure this is so in S. 2597) that another party's earlier-filed patent or published application which can only be significant because it may be a candidate under Section 100-h-1 of S. 2597 or Section 102(e) of existing 35 U.S.C., is not prior art unless it was filed before the effective date of invention of the party whose application is under consideration. We use "effective date of invention" to mean such date as the applicant may be properly accorded upon proof—for example within the two-year limitation that we have already proposed under Subject I.

The filing of a patent application (which ultimately becomes published or patented) may become pertinent for all purposes of "prior art" if its date is before a later applicant's proven, effective date of invention, but it should not be given the full status of a publication by the indirect route of an absolute one-year proviso in the Section 103 definition of patentability. If such an earlier-filed patent can only be an "anticipation" under Section 102 when its filing date (even though more than a year earlier) is before the applicant's invention, its use as prior art under Section 103 should be similarly qualified. While it is proper to start the one-year grace period against an inventor with things that he can ascertain, e.g. actual publication, and while he should not pre-empt anything that was effectively recorded before he entered the field, it would be plainly unfair to cut off his right to show priority of actual invention, if he can do so in fact, over all unpublished acts of others.

We suggest, therefore, that any summary of prior art believed necessary in Section 103 be stated in effect as everything (elsewhere defined) that occurred before the applicant's effective date of invention, with an absolute one-year rule applied only to those items, e.g. publications, that explicitly qualify, under a preceding section, to start the one-year grace period.

We hope the foregoing additional comments, especially in dealing with the specific but important area of defining prior art, will be of help in connection with the pending legislation.

Very truly yours,

ROBERT S. DUNHAM,
Chairman, Committee on Patents.

STATEMENT BY TOM ARNOLD ON BEHALF OF THE STATE BAR OF TEXAS, JANUARY 30, 1968

RE PATENT LAW REVISION BILLS S. 1042, S. 2597, AND S. 2164

Gentlemen: I speak on behalf of the State Bar of Texas which has by formal resolution adopted certain principles of patent law revision and condemned others.

This statement is by way of up-dating the testimony which I gave to this Subcommittee about May 18, 1967, and is directed specifically to S. 2164 and S. 2597, both of which have been introduced since the May 18 testimony.

S. 1042, McClellan, disapproved

You will recall from my prior testimony of May 18, 1967, that the State Bar of Texas strongly disapproves many of the provisions of S. 1042, McClellan.

The particulars of and reasons for those disapprovals are stated in the May 18 testimony and will not be here repeated.

S. 2597, Dirksen, with amendments, is approved

First it must be noted that as introduced, S. 2597 through some oversight failed to include certain amendments mostly of editorial nature, which were adopted by the American Bar Association's Section on Patent, Trademark and Copyright Law at its August 1967 meeting. A copy of those amendments is attached hereto for convenient reference, as Exhibit A.

With minor variation, the patent law principles previously adopted by the State Bar of Texas are all embodied in S. 2597 each as filed and with the amendments of the enclosed Exhibit A.

In meeting assembled in July 1967, the Patent, Trademark and Copyright Section of the State Bar of Texas, indulged live debate of a draft bill by the ABA Patent Section, that became Dirksen S. 2597 as filed. The Section in meeting assembled voted almost unanimously to endorse the draft bill that became S. 2597, as one satisfactory patent law revision effort, though strongly recommending one modification now referred to as "conditional claiming practice."

Subsequently, in August 1967, at Hawaii, the draft bill by the ABA Patent Section, was further amended; and certain of the amendments had not been considered at the July meeting of the State Bar of Texas. So a mail referendum was conducted with respect to the package of amendments. Unfortunately, the mail referendum was phrased so that failure to respond was construed as endorsement of the amendments. This biased form of mail inquiry, might have rendered the mail referendum vote meaningless had there been many Nay votes. But as it happened, there was only one vote that disapproved adoption of the various Hawaii amendments to the draft bill. It thus seems fair to here recite that the principles of all Hawaii amendments have the endorsement of the State Bar of Texas, Patent Section, though some housekeeping editing might be preferred here and there.

However, the Patent Section of the State Bar of Texas, both in the July 1967 meeting assembled and subsequently by other actions, also endorsed the "Conditional Claim" principles of S. 2164 Yarborough-Tower, which happened not to be found in S. 2597 Dirksen.

The principles of Yarborough-Tower S. 164, including conditional claim practice, approved

Whereas S. 2597 Dirksen, makes further changes in present law than does S. 2164, Yarborough-Tower, the two bills are generally consistent in philosophy. S. 2597 Dirksen includes all the important concepts of S. 2164 Yarborough-Tower, except:

Yarborough-Tower S. 2165 embodies what may be referred to as "Conditional Claim Practice."

The State Bar of Texas, in its endorsement of Yarborough-Tower S. 2164, and again in its expression of endorsement of S. 2597 Dirksen, has recommended adoption of Conditional Claim Practice—adoption of this concept into S. 2597 Dirksen.

Since this practice, its role, its purpose, its result, heretofore has not been elsewhere presented to the Senate, an explanation of it is indicated.

What is conditional claim practice?

First we must get the premises in mind:

A patent under S. 2597 Dirksen and certain other proposals, is to expire 20 years from the date of filing of an application regardless of how long and protracted may be the effort to obtain the patent.

When an application for patent is subjected to appellate procedure, and also when the application is subjected to any form of opposition or interference procedure, the time needed to obtain issuance of the patent commonly runs to several years and on not-uncommon occasion runs to ten and twelve years—on very rare occasion to the full 20 years of potential patent life.

Thus, through no fault of the inventor, the delay in issuance of his patent, may cost him the major portion of his patent's value and may also deprive the public of prompt publication of his technology if it be not otherwise published as most commonly it is.

Conditional Claim Practice suggests that:

(1) The patent examiner and applicant should proceed expeditiously with completion of ex parte examination and prosecution of the application for patent, and thereupon the patent should issue without delay for ultimate disposition of either interferences or appeals. If this is done, the average pendency of patent applications will be reduced to substantially the 24 months recommended by the President's Commission on the Patent System.

(2) Those claims to subject matter which the examiner has indicated as allowable, should be issued and be enforceable from that early date forward, without delay for disposition of other issues.

(3) Those claims to subject matter, which claims the examiner has rejected but which are appealed, or which are being contested in an opposition (per S. 2597 Dirksen § 136(d)) or interference (per present Title 35 USC or per S. 2597 Dirksen § 137) should be merely published in the patent. These claims are published by way of information to the public and potential licensees,

but are not enforceable unless and until the condition of winning the appeal or the interference or the opposition has occurred.

(4) When the published "conditional claim" is ultimately allowed unconditionally, following completion of the litigious fight, it then becomes fully enforceable.

As this concept was plugged into present Title 35 United States Code, per *Yarborough-Tower S. 2164*, there was no provision for liability for interim infringement during the period of the appeal or the interference fight; rather a minimum 10-year life of such claims was provided for, extending perhaps beyond 20 years from the application filing date.

At least *some* protection of the patentee, against the circumstance that his claim might be finally allowed unconditionally and enforceable, only after the expiration of the patent, was and is needed, and the ten-year minimum life for claims delayed-in-issue was the protection appearing in *Yarborough-Tower S. 2164*.

Interestingly, in *S. 1042 McClellan* and again in *S. 2597 Dirksen*, there is found the concept of "Interim Liability" for infringement of claims which have been published, provided the infringer is given actual notice of infringement of the published claim—and presumably the right to initiate a declaratory judgment action to decide his liability for such infringement.

Thus, as Conditional Claim Practice, is plugged into either *S. 1042* or *S. 2597*, the patentee whose claims are published pending his winning an appeal or an interference, may give notice of his claim to an infringer and if he later establishes his legal right to that claim he may collect a reasonable royalty "damages" for the infringement which occurred with knowledge by the infringer, during the often many-year fight for his claimed protection.

It can be reasonably debated as to whether or not this interim liability feature, is sound public policy.

On the one hand if the law permits such liability, the infringer who is on notice of a patent claim not yet finally allowed, is plagued with some uncertainty as to what is his proper business decision concerning product design during the pendency of the applicant's fight to get the claim allowed.

On the other hand if the law does not permit such interim liability, it assures that the inventor often will lose much of the efficacy of his patent through crowded court dockets and other factors not within the inventor's control. It assures that the return on corporation's research and development budgets will be reduced. It commands the thought that upon reduction of this incentive to invest capital in the high-risk venture of research, there will be less research capital invested.

Because the functioning system of protection of inventions, has been uniformly found to sponsor the socially desirable commitment of capital to research and development and thereby to progress the useful arts, the Administration in *S. 1042 McClellan*, and the American Bar Association in *S. 2597 Dirksen*, joined in providing for this interim liability as a desirable means, on balance, for giving fair return to inventors without undue burden to others.

The endorsement by the State Bar of Texas section on Patent, Trademark and Copyright Law, of *S. 2597 Dirksen* WITH its interim liability, coupled with recommendation that it be amended to include Conditional Claim practice as above outlined, is thereby seen to make a complete package for amendment of *S. 2597 Dirksen* into a form preferred by this Section.

To avoid misleading inference, it must be recited that the particulars of this interim liability concept in context with Conditional Claim practice, has not been taken before the State Bar of Texas, apart from the Patent, Trademark and Copyright Section thereof.

Conclusion

The State Bar of Texas is in hopes that the Congress will find favor in the enactment of *S. 2597 Dirksen*, (a) with the amendments of Exhibit A, hereto, and (b) amended to incorporate the Conditional Claim Practice feature of *Yarborough-Tower S. 2164*, and with the interim liability features of *S. 2597* applied thereto.

This statement was circulated to the Executive Committee of the Patent, Trademark and Copyright Section of the State Bar of Texas, for checking by them as to the accuracy of the expressions herein, prior to submission to the Subcommittee.

NATIONAL COUNCIL OF
PATENT LAW ASSOCIATIONS,
Washington, D.C., November 22, 1967.

To: Members of National Council of Patent Law Associations.
From: Charlotte E. Gauer, Executive Director, APLA.

GENTLEMEN: AS we were about to place the enclosed Letter in the mail, we were advised that the Bill introduced by Senator Dirksen as S. 2597 was not the Bill in the form approved at the Honolulu Meeting of the ABA. We were further advised that it was expected that Representative Poff would introduce the Honolulu version into the House. Thus, the enclosed Letter was held.

Senator Poff introduced the Dirksen Bill as H.R. 13951. Therefore, both Bills pending before the Congress represent the pre-Honolulu ABA proposed Bill, and are companion Bills.

We are listing below the changes made at the Honolulu Meeting. All references are to the Dirksen Bill, S. 2597.

On page 11, following line 10, insert the following new Section:

(g) The term "actual filing date in the United States" means the earliest date of filing of an application in the United States to which an applicant is entitled.

In lines 11 and 13, Subsections (g) and (h) should be reinitialled as Subsections (h) and (i).

In line 16, the word "thereof" is deleted.

In line 26, the word "sold" is deleted and the words "on sale" substituted.

In line 28, insert a semicolon at the end and add the word "or".

Following line 28, insert the following new Subsection:

(5) Subject matter for which the applicant has no right to secure a patent because the inventor named in the application did not himself invent it or because before his invention thereof, the invention was made in this country by another who had not abandoned, suppressed or concealed it.

On page 12, line 40, delete the word "refutes" and substitute the word "negates".

In line 41, strike the words "after the effective filing date thereof" and insert the words "within the meaning of Section 102 (e), 136 or 137 of this Title.

On page 15, line 31, strike the words "by the same inventor".

On page 16, line 30, insert after the word "prior" "copending".

On page 17, line 31, change the period to a comma and add the following: "except that applications may be examined out of turn under special circumstances established by the Commissioner by regulation."

On page 19, line 1, change the word "sold" to the words "on sale".

In line 30, after the word "allowable" insert "pending".

In line 34, after the word "said" insert "pending".

Following line 39, as a part of Subsection (a) add the following: "A final judgment adverse to a patentee from which no appeal has been or can be taken shall constitute cancellation of the claims involved from the patent and notice thereof shall be indorsed on copies of the patent thereafter distributed by the Patent Office."

On page 20, line 7, delete the words "or his successor in title."

In line 11, delete "or his successor in title," and insert "or patentee".

On page 26, in lines 35 and 36, delete "The Patent Office is hereby established as the sole governmental agency to grant a license or establish a general license."

On page 27, following line 4, insert the following new Subsection:

"(b) The Patent Office is hereby established as the sole governmental agency to grant a license or establish a general license."

In lines 5, 8 and 14, redesignate Subsections (b), (c) and (d) as (c), (d) and (e).

On page 28, line 28, correct the spelling of the word "unexpired".

Following line 29, insert the following Subsection:

(b) The Commissioner may issue several reissued patents for distinct and separate parts of the thing patented, upon demand of the applicant, and upon payment of the required fee for a reissue of each of such reissued patents.

In line 30, redesignate Subsection (b) as (c) and delete "of chapter 12, 13, and 14".

On page 29, redesignate Subsection (c) as (d).

On page 32, line 31, delete "a contributory" and insert "an".

In line 37, delete "contributory".

On page 33, line 2, delete "contributory".

In lines 3 and 4, delete "or contributory infringement."

Following line 19, add "291. Interfering patents"

Page 34, lines 39 and 40, delete "less than the infringer's profits attributable to the infringement, or"

Page 35, line 1, delete "whichever shall be greater,"

Line 5, delete "how his" and insert "what".

Page 36, after line 33, add a new Section as follows :

Section 291. Interfering Patents

(a) The owner of an interfering patent may have relief against the owner of another by civil action, and the court may adjudge the question of the validity of any of the interfering patents, in whole or in part. A final judgment adverse to a patentee from which no appeal or other review has been or can be taken or had shall constitute cancellation of the claims involved from the patent, and notice thereof shall be endorsed on copies of the patent thereafter distributed by the Patent Office.

(b) A civil action under subsection (a) may be instituted against the party in interest as shown by the records of the Patent Office, but any party in interest may become a party to the action. If there be adverse parties residing in a plurality of districts not embraced within the same state, or an adverse party residing in a foreign country, the United States District Court for the District of Columbia shall have jurisdiction and may issue summons against the adverse parties directed to the marshal of any district in which the adverse party resides. Summons against adverse parties residing in foreign countries may be served by publication or otherwise as the court directs. The Commissioner shall not be a necessary party but he shall be notified of the filing of the civil action by the clerk of the court in which it is filed and shall have the right to intervene.

Page 42, following line 19, add the following new Subsection :

(d) For purposes of considering appeals involving applications specified in Subsections (b) and (c) of this Section, the jurisdiction of the Court of Customs and Patent Appeals shall be governed by the provisions of Section 1542 of Title 28, United States Code, in effect immediately prior to the effective date of this Act.

Line 20, redesignate Subsection (d) as (e).

BELL TELEPHONE LABORATORIES,
Murray Hill, N.J., March 1, 1968.

Hon. JOHN L. McCLELLAN,
U.S. Senate Office Building,
Washington, D.C.

DEAR SENATOR McCLELLAN: Bell Telephone Laboratories is the research and development organization of the Bell System, having become a separate corporate entity in 1925. It is currently spending in excess of 200 million dollars per year of Bell System money in basic and applied research, systems engineering, and device and systems development, all relating to the broad field of communications. In addition, it does contract research, design, and development for the Government, primarily the Department of Defense.

Although one of the world's largest research and development organizations, Bell Laboratories is by no means self-sufficient insofar as its technological needs are concerned. Thus, we wish to preserve and encourage opportunities for effective information exchanges without decreasing incentives for investment in research and development.

The attached statement presents our views on several revisions to the patent laws which have been proposed recently by the Administration.

It is requested that this statement be included in the record of the hearings on patent law revision conducted by your Subcommittee.

Very truly yours,

W. O. BAKER.

PATENT REFORM LEGISLATION: PRIORITY SYSTEMS AND THE DEFENSE OF PRIOR INVENTION

Senate Bills S. 1042 and S. 2597, sponsored by the Administration and the American Bar Association, respectively, have stimulated lively discussions on the relative merits of first-to-file and first-to-invent priority systems. Most of

these discussions have focused on the interference question: "Who should get a patent when conflicting claims are presented to the Patent Office"? Many, however, have ignored or glossed over the related question: "To what extent should a patent be enforceable if the patentee is not, in fact, the first inventor?"

Many of these discussions have also failed to account adequately for the viewpoint of organizations with significant commitments to research and development. Such organizations, typically, are quite conscious of the need for timely and effective information exchanges through publications, technical society meetings and informal meetings among scientists and engineers in both universities and industry throughout the world. Thus, they tend to approach the broad question of patent reform with a desire to encourage and promote effective information exchanges, or, at the very least, not to inhibit such exchanges. Also, there is usually an equally strong desire to keep the quality of such exchanges, particularly in the published literature, as high as possible.

Commissioner Brenner's recent testimony^{1,2} that the Administration would accept a modified first-to-file system provided that it contained appropriate limitations to encourage prompt filing of patent applications has prompted numerous suggestions for specific limitations which could be included in such a modified system. This statement will comment on the relative desirability and acceptability of the various limitations thus far suggested from the standpoint of an organization devoted to research and development.

INITIATION OF PRIORITY CONTESTS

There seems to be general agreement that both the public and users of the patent system would benefit if the Patent Office issued patent applications insofar as possible in the order in which they were filed, leaving it to junior applicants to provoke interference contests. There also seems to be substantial public benefit in the proposal of the Administration, the Electronic Industries Association,³ and the U.S. Chamber of Commerce⁴ that a junior applicant should be permitted to provoke an interference only if his filing date is less than one year subsequent to that of the senior party. An "entrance gate" such as this not only encourages prompt filing but also substantially eliminates the opportunity for a party to be spurred into filing a patent application after seeing claims in either an allowed application or an issued patent.

PROOF OF PRIORITY ACTIVITY

In a pure first-to-invent system,⁵ inventive acts, whenever occurring, may be proved to develop a date of invention provided only that the invention has not been abandoned, suppressed, or concealed. Although no showings have been made that this aspect of our present law has led to any undesirable consequences, the Administration has stated that such a system "would do little to accelerate the public disclosure of technological advances."⁶ It has accordingly recommended that proof of all earlier dates be permitted but that such proof be effective only to establish a date of invention not more than one year prior to the parties' filing date. Others⁷ have suggested two years. Still others have suggested a flexible time period based on "activity which is reasonable considering the surrounding circumstances."⁸

Several problems are presented by any arbitrary limitation on proof of inventive activity. First, if the time period is fixed, it cannot possibly be appropriate for each and every of the broad range of technologies accommodated by the patent system. For example, one year may be too long for ash trays and two years too short for complex computers or pharmaceutical processes. Second, unless further complexity is added to the defense of prior invention, the Patent Office will find itself in a position of knowingly awarding invalid patents because of the inter-relationship of priority contest limitations and the defense of prior invention. For example, a party to an interference may prove himself the first inventor in fact but lose the interference by the adjustment of actual dates to effective dates.

¹ Statement of Jan. 30, 1968 filed with Senate Patents Subcommittee.

² Statement before Subcommittee No. 3, House Judiciary Committee, Feb. 28, 1968.

³ Statement of Jan. 30, 1968 filed with Senate Patents Subcommittee.

⁴ Statement filed with Subcommittee No. 3, House Judiciary Committee, Feb. 29, 1968.

⁵ S. 2597; H.R. 13951.

⁶ See note 1 *supra*, p. 3; also note 2 *supra* p. 5.

⁷ S. 1691; H.R. 7454.

⁸ See note 4, *supra*.

Therefore, before any limitations are engrafted on a priority system, other than the one-year entrance gate suggested above, serious consideration should be given not only to reasonableness of the time period but also to its effect on the defense of prior invention. In the discussions and testimony thus far, no *need* has been shown for any additional limitations—only the speculation that earlier public disclosure would result. As an organization devoted to research and development, we are concerned that a desire for promptness in publication might result in a reduction in the quality of what is published. A one-year limitation on the date of invention, in our view, would be too short for the necessary testing and evaluation in a great number of technical developments and would result in either premature publication or premature filing. Two years is believed to be a minimum for any limitation on proof of earlier dates of invention in priority contests.

THE NEW CONCEPT OF "DILIGENCE"

The Administration has recently injected the new thought that a party to obtain the benefit of earlier activities should be required to establish continued diligence from the date of the activities up until the earlier of his filing date or his first public act, such as a publication. This results in the ignoring of reduction to practice as a significant event in the history of an invention. This downgrading of the importance of a reduction to practice in testing theories and evaluating ideas swings the pendulum too far in the direction of early publication. We believe that proper balance should be maintained here so that the inventor who believes in testing an evaluating his ideas before publication, if no longer encouraged, is at least not penalized.

It is, moreover, believed that the use of the term "diligence" in this context is unfortunate. The term has acquired a very specific and strict meaning since it was introduced into the patent law by judicial decision to provide a special exception to the earlier rule that the first to reduce to practice was the first inventor. It is therefore quite likely to carry a connotation inconsistent with the realities of the situation to which it is now applied. The present law of abandonment, suppression, and concealment, perhaps codified to require a showing of reasonable activity on the part of the inventor, would appear to offer a more realistic test of the proper behavior of the inventor after reduction to practice.

DEFENSE OF PRIOR INVENTION

As a large research and development organization with a strong commitment to a free interchange of information with others, we are concerned about the manner in which these various proposals would tend either to stifle or stimulate such interchange. We particularly recognize that a considerable proportion of the dissemination of technology into the stream of public knowledge occurs by means of informal discussions between those working in the various fields in industrial, university, and Government laboratories. This vital flow of information would be greatly inhibited if a viable prior invention defense were not provided. Any change in the law which forces a pattern of behavior limiting the early exchange of information is to be regretted.

Many developments are of minimal importance from a patent standpoint because of limited scope of novelty but nonetheless valuable from an engineering and commercial standpoint. With an *absolute* defense of prior invention, it is not necessary to file patent applications on such developments. In his recent statement before the House Subcommittee, Commissioner Brenner noted the desirability of retaining the prior invention defense because of the "practical impossibility for the Government to secure patent protection on the results of all of its research efforts." Also, because of this defense, there is safety in communicating such developments to others and there is, in fact, a considerable amount of informal exchange of information of this nature.

It is important to note that unless one creates a "publication," as defined by the patent laws, such developments are rarely published, principally because appropriate journals do not exist. Further, to force publication of such developments so as to secure the limited protection of a publication, would tend to overburden the already exploding technical literature.

The defense of prior invention can be either absolute, as at present, or personal. If absolute, prior invention by anyone would invalidate a patent. If personal, the patent would merely become unenforceable against the prior inventor.

For reasons noted above, an absolute defense meshes most logically with a priority system having no time limitations on proof of prefilling inventive activity. If such limitations are included, one must either accept illogical results or modify the defense of prior invention.

In an obvious attempt to avoid illogical results, the Administration has suggested that the same limitations be incorporated in both priority contests and the defense of prior invention (symmetry). Since time periods are involved, they have further suggested equating "public acts" (publication anywhere in the world or public use or sale in the United States) to the filing of a patent application so as to have a measurable time period for the inventor who does not file a patent application. This, admittedly, creates a consistent system and provides an absolute defense of prior invention. In our opinion, however, the defense provided is so limited as to be inadequate.

In particular, it is felt that the suggested system overlooks the different equities and interests involved when one is seeking a patent as opposed to merely trying to use one's own developments. Further, the need for encouraging and protecting investment in research and development has not adequately been taken into account.

As noted above, the type of development most in need of an effective defense of prior invention is the type which typically will not be published unless one creates artificial publications of no public benefit and will not be filed upon because of limited scope. Therefore, the only "public act", in many cases, will be commercial use or sale. For many of today's developments, a time period of even two years is unrealistic when one must measure from the date of first commercial use. Because of the need for developing reliability and compatibility, because of the need for developing other parts of a system of which the development in question may be only a part, because of the need, in many cases, for field trials (which may not be construed as "public acts"), because of the occasional delay in securing a Government license, the actual period following a reduction to practice, in many cases, will be substantially longer than two years. Unless such developments are protected by at least a personal defense of prior invention, the developer is faced with a number of undesirable alternatives: (1) file patent applications on every marginal development whether or not commercial use is presently contemplated; (2) create an artificial publication; or (3) reduce informal exchanges. The public would not benefit from either (1) or (2) and (3) would actually delay and interfere with the dissemination of new technology in one of its most effective ways.

Since the developments for which the defense is believed necessary are a person's own developments, a personal defense, in principle, is adequate. The benefits of the defense, however, should inure to the benefit of the developer, his assignee or employer, and any corporate structure of which the employer is a part. It should also inure to the benefit of others on behalf of whom the work may have been done, such as a prime contractor or customer. It should also be assignable, at least with the assets of that part of a company to which the development related. Taking these requirements into account, together with the additional complications of corporate reorganization, such as mergers, spin-offs, etc., it may well be concluded that an absolute defense is the only one which can effectively be incorporated in legislation.

RIGHT OF CONTINUED USER

It is noted that the Administration, while recommending a symmetrical priority/prior invention system, has recognized two situations outside its symmetrical system which it feels deserve consideration. The first of these it terms a personal defense⁹ which it would accord to any party who has commenced commercial manufacture, use, or sale, or has made substantial preparation therefor prior to the filing date or first public act of the patentee. The second of these¹⁰ is to protect intervening rights, such as can occur when a broadened reissue is granted. Both of these permit the issuance of a valid patent but restrict its enforcement to protect investments made in good faith for the public benefit.

If a symmetrical system with time limitations is adopted, consideration should also be given to any "person" (including the Government) who has made an

⁹ See note 1 supra p. 6; also note 2 supra p. 9.

¹⁰ See note 1 supra p. 11; also note 2 supra p. 41.

investment in a development program with the purpose of bringing the benefits of his development to the public but who has not yet reached the point of commercialization. If the patentee is actually the later inventor, it is inequitable to condemn the first inventor to loss of his investment simply because he does not qualify under arbitrarily limited interference rules. Moreover, the equities in favor of a personal defense for one who has made "substantial preparation" for use do not stop at the point of real estate acquisition or engineering for plant construction. Instead, they extend back to investment in the development program demonstrating the feasibility of an invention. This should be recognized in any statutory enactment. Balancing the equities of the parties, it would appear reasonable to exempt from the effect of a patent claim any person who has reduced to practice an invention, coming within the scope of the claim, prior to the patentee's effective filing date and prior to the earliest date of reduction to practice to which the patentee would be entitled in an interference contest, where the overall pattern of activity or inactivity of the person claiming this exemption is not such as to make it inequitable to permit the exemption.

As noted previously, any defense of prior invention which is personal must be comprehensively defined to take into account the complexities and realities of the modern corporate world.

CONCLUSIONS

A priority system with a one-year entrance gate, coupled with an absolute or personal defense of prior invention, would, with the least amount of legal complexity, provide sufficient incentive for prompt filing and interfere least with formal and informal flow of technical information.

If a time-limited symmetrical priority system is adopted, it should provide at least a two-year period prior to filing for the establishment of a date of invention. Further, it should extend the right of continued user proposed by Commissioner Brenner to provide a personal defense against patent claims for the developer who has reduced to practice an invention prior to the earliest date of reduction to practice to which a patentee of the invention would be entitled under the time-limited rules of the symmetrical priority system.

In either case, the defense of prior invention, if personal, must be sufficiently comprehensive to account for the realities of corporate complexity.

BROWNE, SCHUYLER & BEVERIDGE,
Washington, D.C., April 8, 1968.

Re S. 1042, 90th Congress, first session.

U.S. SENATE.

Committee on the Judiciary.

Subcommittee on Patents, Trademarks, and Copyrights.
Washington, D.C.

DEAR SIRs: It is respectfully urged that the Subcommittee on Patents, Trademarks and Copyrights, in the course of reforming and revising the patent system, make two major changes in the organizational structure provided for the granting of patents.

1. Establish a five man Patent Commission with a staff of Hearing Examiners and a working staff of Primary and Assistant Examiners. The five man Commission would replace the present Commissioner, First Assistant Commissioner and two Assistant Commissioners. The Hearing Examiners would replace the present Examiners-in-Chief (Board of Appeals) and the Board of Interference Examiners. The Primary Examiners and Assistant Examiners would continue to perform the same functions they are now performing.

2. Establish the Patent Commission as an independent agency. This would contemplate removal of the Patent Office from the Department of Commerce and, if desirable, separate the patent operation from the trademark operation.

The recommendation that the Patent Office be established as an independent agency was initially proposed by myself as early as the early 1950s while Honorable Robert C. Watson was Commissioner of Patents. It is significant to note that former Commissioner Watson is so strongly in favor of the concept at this time that he wrote an article promoting the idea in the *Journal of the Patent Office Society* in July, 1967. Most of the reasons for establishing the Patent

Office as an independent agency are thoroughly developed in Commissioner Watson's paper, a copy of which is undoubtedly being reproduced elsewhere in the record of the hearings on S. 1042, 90th Congress, First Session.

The phase of the present proposal which is not developed in former Commissioner Watson's paper is the concept of establishing the body as a five man Commission and a staff of Hearing Examiners who would individually perform functions somewhat comparable to those performed by the present Examiners-in-Chief (Board of Appeals) sitting in panels of three members each. They would, however, perform an additional function of receiving testimony and other evidence in support of the applicant's cause after a preliminary determination had been made by the Primary Examiner or the Assistant Examiners that one or more of the claims of the patent should be denied.

As a further development of the concept of having the patent operation conducted by an independent agency employing the Hearing Examiner system would be the elimination of the trial de novo in the District Courts and limiting the judicial review to appeal to the United States Court of Customs and Patent Appeals on the record made before the Patent Commission. The consistency of this type of organizational structure with the composition and organization of other franchise granting or regulatory agencies is too obvious to require further comment.

Using a recently marked up text of S. 1042, 90th Congress, First Session, as a basis for discussion, it will be observed that Sections 1 to 8, inclusive, of S. 1042 could be easily revised to provide for the establishment of a five man Patent Commission as an independent agency, and the establishment of the Hearing Examiners and a Hearing Examiner system in lieu of the Board of Appeals.

Section 134 relating to appeal to the Board of Appeals would require revision to provide that the applicant could take exceptions from the determination by the Primary or Assistant Examiners to a Hearing Examiner, and a provision for exceptions to the Hearing Examiner's ruling to be taken to the Patent Commission.

The procedure for judicial review as set forth in Sections 141 to 144, inclusive, could stand substantially in their present form, but Sections 145 to 147, inclusive, would be deleted in view of the abolition of the trial de novo in the District Court.

Title 28, United States Code, Sections 1295 and 1542 would require revision in view of the foregoing.

The undersigned will gladly make available to the Subcommittee and its staff his files and memoranda pertaining to the foregoing proposal, and would be pleased to appear before the Subcommittee in support of the foregoing proposal for further elaboration.

Respectfully,

FRANCIS C. BROWNE.

MEAD JOHNSON & Co.,

January 26, 1968.

Re S. 2597—Proposed revision of section 31.

U.S. SENATE,

Committee on the Judiciary,

Senate Office Building, Washington, D.C.

GENTLEMEN: I am in general agreement with Mr. Dirksen's legislative proposals, as embodied in S. 2597, which are designed to modernize the patent laws. I wish to draw attention, however, to the last sentence of Section 31 which appears on Page 7 of the draft bill. This sentence provides that only members of the bar may be recognized to practice before the U.S. Patent Office. This is a substantial departure from present practice, the adoption of which I do not believe is supported by recognized deficiencies in the practice.

At the present time persons who are not members of the bar may be qualified to practice before the Patent Office if they possess the necessary technical training in some field of engineering or science, pass the examination established by the Patent Office, and are of good moral character. Although the proposed legislation would not affect the right of present registrants who are not members of the bar to continue practice, it would prevent registration of such persons in the future. This would be a handicap to the pharmaceutical industry and presumably to other high technology industries, since patent representatives

of companies in these industries are frequently recruited from the research and engineering departments thereof. This practice should be continued.

Accordingly, it is proposed that the last sentence of Section 31 of S. 2597 be deleted before enactment of this bill.

Sincerely,

R. E. CARNAHAN,
Patent Agent.

CROP SCIENCE SOCIETY OF AMERICA,
Madison, Wis., February 16, 1968.

Hon. Senator McCLELLAN,
U.S. Senate,
Washington, D.C.

DEAR SENATOR McCLELLAN: As President of the Crop Science Society I wish to express an opinion on the amendment to add the word "sexual" to the Patent Act covering plants and also on the proposal to delete plants from the Patent Act. The Crop Science Society has a membership of about 3,000 professional scientists in government, universities, and private industry. About half of this membership belongs to Division C-1—"Plant genetics, breeding, and cytology."

The Corps Society has a Seed Committee studying general problems in this area. I asked that they comment directly to Commissioner Brenner on deletion of all plant patents from the Patent Act. Some also commented on the proposal to amend the act to include "sexual" reproducing plants. I received copies of five letters and these results are summarized below. This indicates that the Society is divided in opinions largely by type of employment.

Committee member	Employment	Delete all plant patents	Add sexual
1.....	USDA.....	Replace with seed law.....	No.
2.....	USDA.....	do.....	No.
3.....	University.....	do.....	No.
4.....	Seed company.....	No.....	Yes.
5.....	Do.....	No.....	Yes.

This diversity of opinion was demonstrated previously when the Society examined systems of breeders' rights.

The Crop Science Society has examined the problem of Plant Breeders' Rights. It conducted a symposium on "An Analysis of Plant Breeders' Rights" at the annual meetings of the Crop Science Society in Denver, Colorado, on November 18, 1963. The symposium was sponsored jointly with the American Society for Horticultural Science, American Seed Trade Associations, International Crop Improvement Association, and National Council of Commercial Plant Breeders. The symposium papers were published as a Special Publication Number 3 in cooperation with the American Society of Agronomy, entitled "Plant Breeders' Rights", March 1964.

The reaction to the symposium may be summed up in three paragraphs quoted from page 78 of the special publication:

"The fact that nearly 600 people have attended this symposium through its entire duration of more than four hours provides ample evidence of the importance of and interest in the subject of variety protection. By no means is it to be inferred that this interest indicates a preponderance of opinion in favor of variety protection. True, breeders of certain crops feel a need for some type of variety protection. Many, however, are here for purely defensive reasons. They fear breeders' rights would entail too much regulation and restriction and not favor the present free competitive system. In an attempt to answer the question, let us review the general concepts as proposed by the symposium participants.

"Crops specialists participating in the symposium enumerated more disadvantages than advantages for a system of breeders' rights such as prescribed by the Paris Convention. Private breeders in certain crops, nevertheless, have voiced the need for some form of variety protection. Others, however, do not feel the need for protection as provided through legislation. Breeders of hybrid varieties have a 'built-in' source of protection while United States breeders of asexually produced ornamentals have devised breeder-grower agreements. These agreements, however, have not proven practical in Europe and may be subject to challenge in

the United States on the basis of infringement on freedom of trade. Protective devices that would necessitate greater Federal control and regulations often are viewed with suspicion and opposition. On the other hand, some of the symposium participants have emphasized that a degree of legislation and official regulations is prerequisite to any protective system that is enforceable by legal action.

"Hopefully, the information supplied by the participants in this symposium will constitute a basis for study of variety protection systems and will be helpful in devising protective systems in these crops in which variety protection is desired."

In my judgment the recommendations of the President's Commission to delete "asexual" plants from the Patent Act and the amendment to add "sexual" plants both are premature until alternate programs are examined and compared and until operating procedures can be examined for the proposed systems.

Sincerely,

F. L. PATTERSON,
President.

JACKSON, MISS., *February 10, 1968.*

HON. JAMES O. EASTLAND,
Chairman, the Judiciary Committee,
Washington, D.C.

DEAR SIR: I am informed that the Administration wants to pass the so-called Patent Reform Act.

If this is so, I hope it will be examined very carefully. There are some good features in it but several rather undesirable ones. For one, it would give the patent to the first one who applied, even if he were not the first inventor. This is not in accord with the American spirit of fairness. It would allow the Patent Office to appeal from a decision in the Court of Customs and Patent Appeals to the CCA of the District of Columbia. It would also allow a defendant to claim former use anywhere in the world, instead of only in the United States, as now. It would also prevent a claim in a re-issue patent broader in scope than those in the original patent.

I oppose all such changes for very good reasons. There are other features which are unfair. But I cannot cover all or afford to come to Washington at my own expense. So I hope the hearings may bring out the changes that are taken seriously so an outsider like myself can have a chance to point out some of the objections which we see.

Let me thank you for the courtesy you have shown me in the past and express my best wishes.

Respectfully,

LOGAN R. CROUCH.

DELTA AND PINE CO. OF MISSISSIPPI,
Scott, Miss., March 27, 1968.

HON. JOHN L. MCCLELLAN,
U.S. Senate,
Washington, D.C.

DEAR SENATOR MCCLELLAN: As you may know, we are a private company which has as a considerable part of our business the breeding of new varieties of cotton.

Recently we saw a copy of a letter in which the Secretary of Agriculture opposed the amendment (No. 511 of SB No. 1042) which would allow the patenting of varieties of sexually reproduced (seed) plants. In the light of our experience as breeders of cotton since 1915 and our professional and trade experience as farmers and seedsmen, we feel that the Secretary is misinformed about the effects of this amendment and the difficulties of enforcing it.

We have studied his letter; and while we would rather dwell on the benefits to the farmer and the seed trade, we have answered the points raised in his letter since so many seem to be inapplicable or erroneous.

We submit our remarks to be considered in studying the Secretary's letter.

Sincerely yours,

EARLY C. EWING, JR.,
Vice President.

COMMENTS ON OBJECTIONS OF THE USDA REGARDING THE LAUSCHE AMENDMENT
(No. 511 TO SENATE BILL NO. 1042) REGARDING PATENTS ON SEXUALLY
REPRODUCED PLANTS

(By E. C. Ewing, Jr.)*

The Department of Agriculture has objected to the amendment on two broad grounds: "(1) It would threaten the continued existence of its longstanding programs for developing and introducing new varieties of seeds;" As far as I can see it this would introduce additional competition with the Departments programs, but it certainly would not threaten the existence of them. Developers of private varieties have greatly increased the research and distribution of better varieties and their entry would be desirable rather than undesirable. "(2) It is scientifically and legally unsound." It is not scientifically unsound by any stretch of the imagination as evidenced not only by practical experience but by the policies of the Department itself. We are not lawyers but the patent system has served as a desirable and legally sound method for protecting asexually reproduced varieties. The reasons for separating plants by sexual and asexual methods of reproduction do not hold water in the light of present plant breeding practices and techniques.

These can be discussed separately following the outline of the letter of the Secretary of Agriculture.

We do not quarrel with the idea that developing and introducing new and better seed varieties is a long and tedious job. The methods set forth are not disputed. The need for recouping the cost of these efforts is shown by their long term nature and high cost. There is nothing about this that precludes the Department of Agriculture or its associates from continuing their cooperation with public and private individuals. Furthermore, there is nothing in the proposed legislation which would prevent the Department or any of its co-operators from releasing a new variety of seed plants and either not patenting it or securing a public service patent, as is its policy with many of its inventions in other fields. One of the basic considerations of the National Council of Commercial Plant Breeders and the American Seed Trade Association has been that the patenting of seed plants be entirely voluntary. This is a feature of the plant patent law which is not included in many foreign plans for breeders' rights or in proposals which have been made in the past by the Department of Agriculture with respect to registration of plant varieties.

Nothing would be farther from the minds of the people who wish to protect the development of seed plants than to hamper the introduction by the Department or anyone else of new crop plants or new types of present plants which have characters beneficial to the American farmer. Ornamentals and nurserymen are specifically mentioned by the Secretary. It should be noted that many of these are asexually propagated and thus have protection available. One of the basic considerations is that new characters would not be patentable only a *completely new variety* would qualify.

The Secretary's statement that plant patents would prevent free and uninhibited communication among breeders, both public and private, does not hold water in light of the fact that the presence of protection has not stifled development in other fields where protection is available. The fact that we do not have protection means that the number of people working on our agricultural plant problems is limited by the returns available for capital expended. Nothing illustrates this point better than those crops for which built-in protection in the form of hybrids is available. In corn and hybrid sorghum for example, great numbers of researchers both public and private are working to develop new varieties and new techniques of production. Such efforts on the part of breeders of other crops would certainly pay rich dividends in development of new and better plants.

A great point is made of the fear of pirating of state or federal developments in this field. We should not deny ourselves the greatly expanded possibilities of better plant developments because of the fact that these developments might be stolen. The way to eliminate stealing is to protect the commodity from stealing. The Department of Agriculture suggests we eliminate the value of the product so that there is no temptation to steal it. This is the case now and in many instances the product just doesn't get developed.

It is stated that the Department of Agriculture does not apply for public service patents on new varieties developed under its research programs. It does

*Vice President and Director of Research, Delta & Pine Land Company, Scott, Mississippi.

not seem any more necessary that the Department would have to change its policy if sexually reproduced plants were added to those which are protected under the patent law. If the Department does not have to take out public service patents on asexually reproduced plants, it should not have to take out patents on sexually reproduced plants. The statement that it would harm small breeders and growers whose continued existence is dependent upon the cooperation and assistance from the federal and state agencies is patently false. The whole purpose of this legislation is to make it possible for all breeders to continue their existence and to protect the rights of breeders and growers from those who would profit by taking the work of others without compensation.

Since a variety which has been released unpatented cannot be patented by someone subsequently, dangers that the Department foresees are just not possible. Their releases are protected from infringement whether they are patented or not. While it may be presumptuous for an individual to argue with the Department of Agriculture which supposedly has the last word regarding the reproduction of plants, we must state that the commercial traders in many of our field crops and the Department itself recognize the reproducibility of sexually reproduced plants. Varieties are capable of identification and distinction. The Federal Seed Act itself under regulations promulgated by the Department states that it is unlawful to designate a variety by other than its true name (USDA, Agricultural Marketing Service, Service and Regulatory Announcements, No. 156, Section 201.34). If this be possible one must be able to determine the true identification of a seed variety. The loan program of the Department's Commodity Credit Corporation in the case of wheat makes certain distinctions for the Gaines variety of wheat; and in the case of rice, many of its own regulations were based upon the variety until this year. In the case of cotton where the characteristics of a particular type are difficult to determine by other means, the designation of variety is proving very useful as a basis differentiation. As more and more attention is given to quality, identification of a variety will become more and more important as a means of determining other characteristics which are much more difficult and expensive to measure.

The Secretary's letter states that asexual reproduction is genetically absolute. This is true. It also states great difficulty is encountered in keeping a seed propagated variety true to its original characteristics, performance, and uniformity. This is not true. The value of a new crop variety depends on its ability to maintain a level of production and quality throughout its various generations. A number of methods are available to maintain the characteristics of a variety. A breeder uses these to produce varieties which perform as the customer expects. Mixture and genetic drift are possible under the situation as now exists where the breeder is *not* able to control and be responsible for his own varieties after they leave his hands. Whether a plant is asexually or sexually reproduced has little to do with whether or not it can be identified for the purpose of determining patent infringements or for any other reason. The difference between such a variety and other varieties provides the method for determining difference and not the type of reproduction.

As one of several firms together with the Department and its cooperating states, we keep our seed propagated varieties true to their original characteristics, performance, and uniformity without great difficulty. One has to examine the number of seed propagated varieties used in American agriculture to see that this must be so.

The statements regarding the changes due to differences in environment are typical of those throughout this statement. One would assume from reading this paragraph that the variability, due to environment, of seed produced plants is more than that of asexually reproduced plants. The type of reproduction has nothing whatsoever to do with this. The sentence regarding unanimous agreement in the scientific community, by the same token, has nothing to do with the issue being discussed.

The Secretary's objections continue in that he says that the patent specification "Shall contain a written description of the invention of such full, clear, concise and exact terms as to enable any persons skilled in the art to which it pertains to make and use." It is quite obvious that one cannot take a description and reproduce a plant from it. One must have living plant materials to reproduce plants. Section 142 permits the description a new variety of plant in terms that fit the description of plants rather than terms which fit the descriptions of machines. There seems to be very little reason for saying it is not a description when as a simple matter of fact it is a description couched in terms which will properly describe the object which it is trying to characterize.

One should remember that the provisions of the Constitution of the United States provide for protections for innovators and not just for innovators of machinery, compositions of matter or processes. Following this same principle it is quite possible that if one uses the right terms for descriptions an infringement suit can be properly settled.

When one discuss infringement and the difficulty of identifying varieties for purposes of determining infringement one ignores the greatest causes of loss to innovators of seed produced plants. This loss occurs when an unauthorized individual reproduces a plant and under the Federal Seed Act must call it by the variety name or be guilty of violating the Federal Seed Act. He sells this seed without any expense or investment of developing the variety and taking advantage of the advertising and promotion of the originator: he sells this seeds in direct competition with the person who developed and promoted it. Although the unscrupulous person's product may be inferior, the person who developed the variety is often considered responsible for any shortcomings of the seed regardless of the fact that his variety was used in an unauthorized manner and he has no knowledge of its use.

The Department says that because there are few guidelines to determine what constitutes varietal difference* * * it is difficult if not frequently impossible to render any conclusive or even reasonable opinion that any given asexually reproduced plant is in fact a new variety. They go on to say that it would be even more difficult to do this in the case of seed propagated plants. This is in spite of the fact that the Department itself is releasing new varieties of crop plants which it claims to be different from varieties now in production, and its Federal Seed Act regulations say that this particular plant or the reproduction thereof must be identified as to variety.

I am not a cabbage or tobacco breeder nor an alfalfa or forage grass breeder but I am quite familiar with cotton and I take direct issue with the Department when it says that a variety in a few years would no longer fit the description on which it was patented. If a variety were patented, it would insure that the breeder was responsible for seeing that it would fit the description or be in violation of the Federal Seed Act, and you can be certain that this would be done. Much seed of various crops is produced in area different from the area of adaptation. This is particularly the case where crops are suited to an area in which seed production is difficult. The seed of these crops is often produced in places where the varieties are not adapted but where the climate is suitable for production of high quality seed. This does not affect their utility or their properties when these seed are taken back and grown in the areas for which they were bred.

The Secretary says it is extremely doubtful that any scientist would risk his standing in the professional community by attempting to give expert testimony in favor of a plaintiff that an accused plant infringes. This is exactly what the Department must do if it is to carry out the provisions of its own Federal Seed Act.

The Secretary mentions the problem of determining differences of varietal magnitude when selections are made from a parent stock and the new varieties differ from it in very small degree. This undoubtedly would be a problem but not one which is peculiar to sexually reproduced plants. Exactly the same problems might arise with asexually reproduced plants. The fact is, however, that this has not proven a bar to the usefulness or the legality of plant patents for asexually reproduced plants.

The Secretary states as a fact "The virtual impossibility of enforcing a patent on a seed produced plant." There is not that much difference between enforcement of a patent on a seed produced plant or upon an asexually reproduced plant. Experience over a number of years has shown that patents on asexually reproduced plants are enforceable and valuable and tend to carry out rather than defeat the purpose of granting patents as outlined under the United States Constitution. In what is mentioned as the final aspect of difficulty is the problem of enforcing the patent in the entire United States market. Again under the patent law responsibility for such enforcement of a patent rests with the person to whom the patent is granted. This relieves the Department of Agriculture from such responsibility and also makes it imperative that the patent owner proceed only against those who reproduce his varieties in violation of the patent laws. Certainly no one would accuse a private grocer or supermarket owner of reproducing anything. The patentee would not have to proceed against every homeowner who planted a flower garden from seed produced by an infringing grower. He would only have to proceed against the infringing seed grower.

The above has been the case with asexually reproduced plants and it has worked well. In fact, it is much easier for a flower gardener to reproduce plants

by asexual means and be sure that they will reproduce as he desires than it is for him to reproduce varieties by seed. Regardless of this, the plant patent for asexual plants has been helpful and enforceable.

The Department seems to be obsessed with the idea of maintaining security around experimental plots of ground and is fearful that the theft of new but unreleased varieties would jeopardize the granting of patents on seed produced plants. Actually the same thing applies to plants regardless of how they are reproduced. We would say that the Secretary's summarization is in error in that he states the amendment would render administration of the plant patent statutes unworkable. It has been quite workable for asexually reproduced plants and we do not think this difference in reproductive systems would cause any exceedingly different administrative problems. Thus it would not introduce impenetrable confusion into this aspect of the patent law as suggested by his summary and finally it would not inhibit research. Research is inhibited more by lack of profitability of the results than it is by any lack of interchange of information and genetic material. Because of the problems involved in breeding new crop plants we do not believe that the interchange of information or even of early genetic material would give one breeder an advantage over another one and therefore we should continue to have a cooperative interchange of this type of information and material. It would be well to point out, though, that the policies of the Department of Agriculture would have a considerable influence upon this interchange.

In his final paragraph the Secretary mentions the Bureau of the Budget. Under present conditions it is most likely that the budget of the Department of Agriculture will be cut. If this should happen to the research activities of the Department of Agriculture, it would be helpful if private industry was enabled through this legislation to shoulder some of the load that has in the past fallen upon the taxpayers.

FEBRUARY 12, 1968.

MR. DONALD G. DAUS,
Falls Church, Va.

DEAR MR. DAUS: I appreciate your thoughtfulness in furnishing me a copy of your article of plant patents which appeared in *Economic Botany*.

I believe that the information would be of considerable value to the members of the Subcommittee in considering the proposed plant patent amendment. I am, therefore, making your article a part of the official record of the hearing.

With kind regards, I am

Sincerely,

JOHN L. MCCLELLAN, *Chairman*.

FALLS CHURCH, VA., February 1, 1968.

Senator JOHN L. MCCLELLAN,
Chairman, Subcommittee on Patents, Trademarks, and Copyrights, Committee on the Judiciary, Senate Office Building, Washington, D.C.

DEAR SENATOR MCCLELLAN: I enclose of a copy of an article in *Economic Botany*, Vol. 21, pp. 388-94, just received, which appears to be pertinent to the hearings of your subcommittee on amendments to the Plant Patent Act conducted today.

The general summary of foreign patent law relative to plants is, to my knowledge, not published elsewhere as of the date of submission of the manuscript. Reference to the Republic of the Philippine's possible adoption of a plant patent law as "remote" is based upon a letter from Tiburcio S. Evalle, Director of Patents, dated November 10, 1965, in response to my inquiry.

Respectfully,

DONALD G. DAUS.

[From *Economic Botany*, October-December 1967]

PLANT PATENTS: A POTENTIALLY EXTINCT VARIETY

(By Donald G. Daus¹)

The abolition of plant patents was recommended by the President's Commission on the Patent System in its recent report. However, the bills introduced in Con-

¹ Examiner, U.S. Patent Office. The opinions expressed in this paper represent personal views and not the official view of the U.S. Patent Office.

Received for publication Apr. 18, 1967.

gress (S. 1042 and H.R. 5924) to implement the report did not include this for lack of time for "further study to determine the most appropriate means of protection."

Since a reappraisal of Plant Patents can be expected in the near future, it is appropriate to explore the actual and potential scope of the existing law.

This paper will delineate the legal and taxonomic bounds of the plant patent law. For perspective, limited comparison to other nation's laws is provided.

Since adequate descriptions of procedures for obtaining plant patents are available elsewhere (8, 14), this aspect is not discussed.

HISTORICAL

Although patent laws are of ancient origin (since 1474 in Venice), plant patents are a recent development.

On February 11, 1930, identical bills were introduced in Congress by Hon. J. G. Townsend of Delaware and F. S. Purnell of Indiana.

After prompt committee hearings, the modified bill was passed May 12, 1930 and signed by President Hoover on May 23, 1930, becoming the Townsend-Purnell Plant Patent Act of 1930.

The demand for patent protection came primarily from rose and fruit tree breeders. In both these fields only asexual propagation is of commercial importance. Opposition came from the farmers who propagate by seeding, only "Irish" potatoes being cultivated asexually. Congress compromised, establishing the patentability of asexually reproduced plants exclusively, but excluding potatoes. The United States Department of Agriculture supported and the Patent Office initially opposed plant patents.

Although called the "Plant Patent Act," it is wholly supplementary to the laws relating to patents of invention and designs. This law was the first expressly to permit the patenting of plants.

The provisions remained unchanged until January 1953, when the general patent law was codified, the plant patent parts becoming Title 35, United States Code, Sections 161 to 164.

On September 3, 1954, Section 161 was amended to clarify a question raised by the Patent Office Board of Appeals. The Board had ruled that discoveries of wild plants in uncultivated areas were not included within the language of the Act and could not be patented. Previously, many such plants had been patented. The amendment specifically excluded plants discovered in an uncultivated state, implicitly imparting patentability to plants discovered in cultivated areas.

As amended, 35 U.S.C. states:

"§ 161 Patents for Plants

"Whoever invents or discovers and asexually reproduces any distinct and new variety of plant including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state, may obtain a patent therefore, subject to the conditions and requirements of its title. * * *

"§ 162 Description, Claim

"No plant patent shall be declared invalid for noncompliance with section 112 * * * if the description is as complete as reasonably possible. * * *

"§ 163 Grant

"In the case of a plant patent, the grant shall be of the right to exclude others from asexually reproducing the plant or selling or using the plant so reproduced."

Section 162 recognizes that words cannot precisely describe attributes as fragrance, color, etc., and excuses plant patents from strict requirements of precision and clarity. Section 164 (omitted here) provides for assistance to the Patent Office by the Department of Agriculture.

The stated purpose of the Act was to afford agriculture and horticulture, so far as practicable, the same opportunity to participate in the benefits of the patent system that had been given industry, hoping for the discovery of plants that would revolutionize agriculture, as had inventions in steam, electricity and chemistry. Since asexual reproduction is required and since tuberous plants, particularly potatoes, are unpatentable, a large portion (on a dollar value of crop basis) of the economic plants are excluded from this hope.

An unsuccessful attempt to remove the "potato exclusion" was made in 1959. The Patent Office supported the removal; the Department of Agriculture opposed it, in accord with its policy of not patenting any plants derived from Department

of Agriculture research. A governmental agency has no need for patent protection. When the agency develops processes that require no major expenditures to commercialize, the users do not require patent protection. Patent protection is needed primarily to attract venture capital (3).

THE ECONOMIC IMPACT OF PATENTS

There are at least two objectives of the United States Patent System: 1) prompt disclosure of ideas and discoveries, and 2) encouraging commercial utilization of these to provide consumable products. From an economic view, the latter is the controlling factor, both in dollars contributed to gross national product and availability to the consuming public of products which might not otherwise be accessible. This is done by protecting the innovator with a monopoly for a limited time—17 years—against the uncontrolled competition of those who have not taken the initial financial risk. This financial risk refers to development costs and is not limited to costs of discovery.

Disclosure of ideas, without more, has limited economic impact. Commercial availability is not automatic. For example, penicillin was described in 1929. No one invested money for commercialization for a decade. At that time, medicines were not patentable in the United Kingdom. No one took the uncertain risks. Without patent protection, entrepreneurs are less likely to invest if patented or otherwise protected alternatives are available. The decline in the fermentation solvents industry relative to synthetic solvents after denial of patent protection to culture bacteria has been noted (3).

The grant of a patent has been compared to homesteading of land to provide incentive to develop it (2). In some nations (not the United States), the analogy extends to a requirement that a patent be 'worked' or else forfeited.

Robb (8) has reported that seven to ten years are required to develop a new rose to market at an expense of \$50,000 to \$100,000 for breeding and promotional costs.

Rose bearing plants constitute about half the plant patents granted. Wuesthoff (15) notes that prior to the act, 90% of the roses sold in the U.S. were imported. By 1956, this was down to 10%. At the least, this one industry has been encouraged by the Plant Patent Act. Since this industry was the initiating force, the Plant Patent Act cannot be deemed unsuccessful.

THE RIGHTS OF THE PLANT PATENTEE

Under the Constitution, Article I, Section 8, Congress has the power "to promote the progress of science and useful arts" to secure "for limited times to authors and inventors the exclusive right to their respective writings and discoveries." "Exclusive right" is interpreted as the rights to exclude others from making, using or selling the patented item. The three basic rights have been held to be separate and distinct rights. Each individual act of unauthorized manufacture, sale or use is a distinct infringement of the patent. The patentee enforces his grant by civil suit for money damages. In one case, infringing plant material was ordered destroyed.

Experimental use is not usually infringement.

Section 163 substitutes asexual reproduction for making in order to satisfy those who feared that such reproduction of a plant might not be construed as a "making" of the invention since nature plays a vital role in the making of a plant (1).

It is contended by some that a plant patent covers only a plant reproduced from the original, an actual descendant, a clone. If Congress so intended, it would have expressly limited the scope of protection (1).

The test of infringement is not asexual reproduction but substantial identity of the plant, as set out in the "claim" of the patent. A clone of a mutation that lacked the characteristic of the claimed plant would not infringe. The owner of a plant patent does not obtain any right to reproduce the plant asexually or otherwise but merely the right to exclude others from using, selling, and asexually reproducing the claimed plant (1). The patent does not cover parts of plants, as seed or fruit, thus sale of these cannot be prevented. However, growing the seed would be infringement, if the seedling shared the claimed characteristics. It should be noted that "plant varieties that produce true to seed are not patentable" (14).

Since the claim language may not adequately describe such characteristics, a practical problem of proving identity exists, except where actual descent is shown. One writer has proposed that the alleged infringer should bear the burden of showing an independent source (6).

The authorized sale of a patented plant carries an "implied license" to use it for its normal utility and function. It is clear from the legislative history of the Act that Congress intended that a plant patentee would be able to control the plant's asexual reproduction, that is by budding, cutting, layering, division, and the like. The language appears to exclude "asexual seeds" (apomicts), as in citrus.

There has been remarkably little litigation of plant patents. Thus the precise meaning of the Act has not been extensively construed.

THE "PRODUCT OF NATURE" DOCTRINE

A plant discovery resulting from cultivation is presumably unique, isolated and not repeated by nature nor reproducible by nature unaided by man. Such discoveries can be made available to the public only by encouraging those who possess the single plant to reproduce it asexually (to insure genetic identity) and thus to create a supply (14).

The general patent law does not permit grant of a valid patent on a so-called "product of nature," since no inventive act can be presumed. Plants found in an uncultivated state cannot be presumed to have been created by other than nature.

Prior to the Plant Patent Act, this doctrine barred the patenting of plants.

Oranges with rinds impregnated with borax were held not to be new articles of manufacture and, therefore, unpatentable as products of nature (*American Fruit Growers v. Brodger Co.*, 283 U.S. 1). Aggregations of six strains of *Rhizobium* were held unpatentable (*Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127), where each strain retained the effect previously possessed, no strain acquired a different use and the combination produced no *new* bacteria. Interestingly enough, the Supreme Court did not hold bacterial strains unpatentable in all situations.

There can be nothing operable that is not ultimately a product of natural forces. This legal doctrine is not normally invoked where the invention's characteristics are not previously known or where an unexpected or unexpectedly improved result is obtained.

PATENTABLE PLANTS: SCOPE AND LIMITATIONS

A plant sought to be patented must meet certain legal requirements. The plant variety must be new (previously unknown) and distinct. New and distinct varieties fall roughly into three classes: 1) sports, 2) mutants, and 3) hybrids (14). Sports or chance seedlings are the most common plants patented (10).

Newness of the plant is determined by the Department of Agriculture, which reports its opinion to the Patent Office, which then ultimately renders a decision on patentability. This opinion must be supported by specific reference to known varieties (14).

The legal significance of the word "variety" in the Act has not been construed. The term has been defined by the International Code of Nomenclature for Cultivated Plants (Art. 5) as "an assemblage of cultivated individuals which is distinguished by any characters (morphological, physiological, cytological, chemical or others) significant * * * which when reproduced * * * retains its distinguishing features." Varieties of asexually reproduced crops are called clones (Art. 11).

The characteristics which may distinguish a new variety include, but are in no way limited to, immunity from disease, resistance to cold, heat or drought, color of flower or fruit, fragrance, form and ease of asexual reproduction. No example is seen, as yet, of a biochemical characteristic, as increased or decreased alkaloid or enzyme content, as a basis for plant patentability.

The plant must be asexually reproduced prior to application for a patent, but must not be available to the public more than one year before applying. An unrecognized variety is not considered available. Implicitly, the distinctive character must be retained by the clone.

The ability to produce seeds does not preclude patentability, unless such varieties are "true to seed." This exclusion is not unreasonable. Since less time is needed to develop marketable supplies for seed propagation, the need for 17

years protection would be reduced. Since variation would be greater, particularly where the variety is heterozygous, proof of infringement would be more difficult.

The Act explicitly excludes plants sexually reproducible by tubers, the legislative history specifying the Jerusalem artichoke (*Helianthus tuberosus*) and the Irish potato (*Solanum tuberosum*) on the theory that these tubers are the edible portions and a patentee could or should not enforce his patent against all who buy the tubers in the market (1). This is an illogical exception, particularly in view of the extensive grant of plant patents (over 25%) for fruit bearing varieties.

The term "tuber" is interpreted in its strict botanical sense, as meaning a short thickened portion of an underground stem, as opposed to bulbs, corms, stolons, and rhizomes (13).

Sweet potato vines, *Ipomoea batatas*, are outside the exclusion, since the edible portion is a fleshy root. None, however, are patented. There is some question as to patentability of the Taro, *Colocasia esculenta*, and of *Dioscorea*, the latter a potential source of sterioids.

In contrast, the word "plant" has been interpreted by the Court of Customs and Patent Appeals as meaning the popular, non-technical sense and excluding bacteria. *Clostridium*, used for acetone fermentation, were held unpatentable under the Plant Patent Act in the decision *In re Arzberger*, 112 F. 2d 834. The correctness of the decision has been recently questioned (3), since the purpose of the Act was to aid agriculture and since an industrial bacterial fermentation consumed major quantities of materials of agricultural origin.

A major research endeavor of the United States Department of Agriculture is developing microbiological processes for utilizing agricultural products.

Although "Mushrooms," *Agaricus*, had been patented both before and after the Arzberger decision (Pats. 27 and 2050), the status of less complex fungi as *Penicillium* is unclear. Neither patents nor published decisions contrary are available. A logical rationale resolving the "Mushroom" patents and the Arzberger ruling would be difficult. *Penicillium* breeding contributed the major factor in reducing costs of penicillin. Apparently, since the pioneer selection was done by the Department of Agriculture its policy of not patenting plant material may explain the absence of patents. The drastic reduction in penicillin cost by strain selection and X-ray mutation is one of the most spectacular economic feats of plant genetics. This government-financed breakthrough occurred a decade after discovery of the drug.

The commercial strain of the bacterium that produces chlortetracycline, *Streptomyces aureofaciens*, is not patented. The patent on the antibiotic itself expires this year: the bacterial culture deposited on applying for the patent was not a commercial strain. To counter part of the alleged tetracycline conspiracy, the Federal Trade Commission is seeking an order requiring these commercial strains to be made available. It was not until the culture was stolen that infringement of the patent was possible. It is ironical that the public cannot commercially practice an expired patent because one element was not itself patentable.

Relatively few gymnosperms have been patented. Two varieties of *Ginkgo biloba* have recently been protected (Pats. 2,675 and 2,726). These are the most primitive seed bearing plants patented.

No algae have been patented under the Plant Patent Act, although there is no apparent reason to expect them to be unpatentable. Since research is underway selecting algal strains for life support systems or possible foods, applications on these may be attempted. Since algae are closer to the "popular" concept of plants than are bacteria, the Arzberger decision is probably not a legal bar. The asexual reproduction can be met by the use of an agitator which shears the filaments or colonies, thus dividing them (3).

About 75% of plant patents are drawn to members of Rosaceae. Half are to rose bearing varieties, one quarter more to other flowering ornamentals and one fifth to edible fruit bearing varieties, chiefly peach trees. One carnation mutant resulting from atomic radiation has been patented (Pat. 1,481, one of the very few government owned plant patents).

The remainder include one tobacco (Pat. 412), bent grass, *Agrostis* (Pat. 1,924) and blue grass, *Poa* (Pats. 2,364, 2,513, and 2,615) as well as various ornamental evergreens. The patenting of blue grass has been noted as a possible new trend (16).

Among the very few non-ornamentals having industrial utility are sugar cane and poplar trees (*Populus*) the distinctive characteristic of which ease of pulping (Pats. 207, 211-8, 225-30 and 365). Few purely ornamental trees have been patented (5), although activity appears to be increasing.

TRENDS

The approximately 2700 issued United States Plant Patents comprise less than 1% of all patents granted. Their scope is narrower than other patents, but the probability of a grant is greater; only a little less than 10% of the applications being unsuccessful.

The tabulated data are uncorrected for changes in Patent Office backlog. Correction would tend to reduce the apparent percentages allowed.

The rate of plant patenting has slowly increased. In the first 14 years, less than 0.1% of the patents granted were for plants (7). Between 1961-5, the relative percentage is slightly more than twice that, in a period of increase in total patents granted. Fifty-five plant patents were granted in 1948; 129 in 1963, an increase of 130% in the absolute rate of issue. The recent increase in Patent Office fees would be expected to slow this rate since some individuals may be deterred by the increased cost.

Most plant patents are assigned to nurseries. Few are owned by industry or universities, which is unusual in view of their great interest in patents of invention. The latter have either not considered the opportunity or determined that the narrow scope makes plant patent protection uneconomic.

Potential areas of plant patent activity are algae, herbs having useful but complicated alkaloids, as those of *Vinca rosca*, lawn sod, and slash pine with increased oleoresin content. Unpatented but eligible varieties include garlic, bananas, pineapple, and certain palms.

Possible areas of interest include new strains of ergot (*Claviceps purpurea*) suitable for submerged culture in industrial fermenters and the use of specially adapted plant strains for the removal of nitrate pollution from water.

TABLE 1

	Applications filed, 1961-5	Patents granted, 1961-5	Percentages allowed (uncorrected)
Patents:			
Invention.....	436,082	259,971	59
Design.....	25,251	13,862	55
Plants.....	628	576	92

LAWS OF OTHER NATIONS

The United States was the first to provide special patents for plants. Two nations whose patent laws are closest to the United States have not followed the example.

The Republic of the Philippines, the patent law of which was once identical, does not have these special provisions. The possibility of a change is "remote."

Canada's patent law is a unique blend of British and United States concepts. No plant patents are permitted. A 1960 Royal Commission considered but expressly rejected the concept of plant patents. This was primarily on the concern that Canadians would have to pay royalties on American varieties, (United States Patents have no legal force beyond its frontiers) which would far outnumber the expected number of varieties of Canadian origin, 95% of Canadian patents are granted to foreigners. The Commission questioned the value of rose varieties to their economy (10).

Since 1952, the Republic of South Africa has provisions similar to the United States. Most South African plant patents are to roses, mostly of foreign origin.

The British law is said to exclude plant patents. A single exception exists, British Patent 458,388, drawn to a poplar tree which corresponds to 13 United States plant patents. This illustrates the narrowness of United States plant patents, which are permitted to have only one claim each.

In France, Italy, Belgium, and Luxembourg patents are granted on all plants, not merely those asexually reproduced, under their general patent laws. Since patents in these nations are granted without examination as a matter of appli-

cant's right (except in France on medicinals), a patent in these countries does not carry any implication of inventiveness. In France, patents carry the warning "without guarantee of the government."

In (West) Germany, plant patents are granted under the general patent law. There is no limitation to asexual reproduction; one of the first German patents to plants claims a pea (15). Since 1953, Germany also had a seed registration law "Saatgutgesetz," which excludes ornamentals.

There is a pronounced trend in Europe towards granting an alternative form of protection called "Breeder's Rights." Fejer discusses the problems of Breeder's Rights (4).

An international agreement, the Convention of Paris for the Protection of New Varieties of Plants, was drawn up in 1961, providing that each signatory nation will establish a system of variety protection for at least five genera when the Convention becomes effective. Belgium, Denmark, France, Germany, Italy, the Netherlands, Switzerland, and the United Kingdom are signatories (11). Weiss doubts that the United States will participate (16).

TABLE 2

Nation	Plants patentable	Type	Reference
Belgium.....	Yes	General.....	(15)
Canada.....	No	.....	(10)
Czechoslovakia.....	No	.....	(13)
France.....	Yes	General.....	(15)
Germany.....	Yes	General.....	(15)
Israel.....	No	.....	(13)
Italy.....	Yes	General.....	(15)
Luxembourg.....	Yes	General.....	(15)
Morocco.....	Yes	(?).....	(10)
Netherlands.....	No	.....	(13)
Philippines.....	No	.....	.....
Portugal.....	Yes	(?).....	(15)
Russia.....	No	.....	(13)
South Africa ¹	Yes	Asexual only.....	(15)
Tunisia.....	Yes	(?).....	(10)
United Kingdom.....	No	.....	(13)
United States.....	Yes	Asexual only.....	.....

¹ Since receipt of the manuscript South Africa has ceased to grant plant patents (cf. Bull. Amer. Pat. Law Assn. 1967: 244).

Gradual implementation is expected: wheat, barley, either oats or rice, corn, potato, peas, beans (*Phaseolus vulgaris* and *P. coccineus*), alfalfa (*Medicago sativa* and *M. varia*), red clover, rye grass, lettuce, apples, and either roses or carnations are embraced.

The effect of the "Breeder's Right" is that prior authorization shall be required for production for commercial markets of the reproductive or vegetative propagating material (including whole plants) of the protected variety (Art. 5 of the Convention). Utility (meritorious performance) is not required for conventional breeder's rights. The rights are positive, as compared to the patentee's right to exclude (16).

A trend toward international adoption of plant patents is not evident. The Model Code for Developing Countries, Section 5 (12) expressly rejects plant patents. It is unlikely that developing countries will adopt them.

CONCLUSIONS

Plant patents serve a definite purpose for the horticulture industry. To this end, their continued existence is justified.

The great hopes for agriculture have not been realized, possibly by the illogical exclusion of the potato, one major economic plant otherwise within the scope of the Act, and possibly by the judicial exclusion of bacteria, the use of which in acetone fermentation was a once significant consumer of agricultural products.

The plant patent gives its owner the right to exclude others from selling, using, and asexually reproducing the protected variety.

A few major nations have adopted this American innovation. Many prefer a second form of protection: Breeder's Rights. Lack of international homogeneity is characteristic of national patent laws.

The full taxonomic spectrum of potential coverage has not been utilized, 75% of the varieties being Rosaceae.

The emphasis has been on ornamentals rather than varieties (other than fruits) with agricultural or industrial impact. The United States Department of Agriculture has been active in the latter endeavors and has a policy of not patenting plant material. Little change can be expected.

University and industrial organizations have little utilized a possible opportunity.

The existing law should be retained and perhaps broadened to include bacteria and potatoes.

Thomas Jefferson once summarized: "The greatest service which can be rendered to any country is to add a useful plant to its culture." The incentive for this addition should be retained.

LITERATURE CITED

1. Allyn, Robert Starr, 1934. *The First Plant Patents*, Educational Foundation, Brooklyn, N.Y. 103 pp.
2. Birch, Robert L. 1966. *The Creative Incentive: The Patent System and the Incubation of Industrial Hardware*. Jour. Pat. Off. Soc. 48: 689-95.
3. Daus, Donald G., Bond, Robert T., and Rose, Shep K. 1966. Microbiological Plant Patents. *IDEA* (Pat. Tradmk. Copyrt. Jour. of Res. Ed. 10: 87-100.
4. Fejer, S. O. 1966. The Problem of Plant Breeder's Rights. *Agr. Sci. Rev.* 4: 1-7.
5. Gleason, Harry. 1960. Patented Trees. *Horticulture* 38: 482-3.
6. Langrock, Peter F. 1959. Plant Patents-Biological Necessities in Infringement Suits, Jour. Pat. Off. Soc. 41: 787-90.
7. Magnuson, Raymond A. A Short Discussion on Various Aspects of Plant Patents, Jour. Pat. Off. Soc. 30: 493-512, 1948.
8. Robb, Harry C., Jr. Plant Patents, *Encyc. of Pat. Prac. and Inv. Mgmt.*, Reinhold 641-55, 1964.
9. Rossman, Joseph, 1931. Plant Patents. Jour. Pat. Off. Soc. 13: 7-22.
10. Royal Commission on Patents, Copyright and Industrial Design (Canada). 1960. Report on Patents of Invention. 133-9.
11. United International Bureaux for the Protection of Intellectual Property (B.I.R.P.I.). 1963. Convention of Paris for the Protection of New Varieties of Plants. 55 pp.
12. ———. 1965. Model Law for Developing Countries on Inventions. 124 pp.
13. United Nations. 1964. The Role of Patents in the Transfer of Technology to Developing Countries. U.N. Doc. E/3861 Rev. 1, Sales No: 65, H.B.A. pp. 68, 72, 78, 86, and 99.
14. U.S. Dept. Comm. 1965. General Information Concerning Plant Patents. 7 pp.
15. Wueshoff, Freda. 1956. Patenting of Plants. *Trans. Chartered Inst. Pat. Agents*. 64: B19-34, C13-31.
16. Weiss, Martin G. 1964. Plant Breeder's Rights. *Seed World* 9(12): 4-7.
17. ———, and Little, Elbert L., Jr. 1961. The Certification of Seeds. *N.B. Agr.*, U.S.D.A. 359-364.

HARNESS, DICKEY & PIERCE,
Detroit, Mich., February 14, 1968.

Hon. JOHN L. MCCLELLAN,
Senate Office Building, Washington, D.C.

DEAR SIR: As Chairman of the committee reviewing pending patent reform legislation, I would like to urge you to consider revising present Section 151 of 35 USC in order to alleviate what I consider to be a poorly drafted and unjust portion of the statute.

To explain my position in this regard, I am taking the liberty of enclosing a copy of my letter to Mr. William B. Yates, President of the Michigan Patent Law Association, of which I am a member.

Should you or any of your assistants wish any further explanation or have any questions in this matter, I will be most happy to cooperate.

Very truly yours,

RICHARD E. DIBNER.

HARNESS, DICKEY & PIERCE,
Detroit, Mich., February 14, 1968.

Mr. WILLIAM M. YATES,
Patent Department, Dow Chemical Co., Midland, Mich.

DEAR SIR: With regard to the pending patent reform bill, I wish to call your attention to the need for revising Section 151 of the present act which, in my opinion, is extremely objectionable, and to urge that you take steps to include a revision of this section in the new act.

The Patent Office presently construes Section 151 as being an absolute bar to the payment of an estimated issue fee more than six months after the notice of allowance, regardless of the cause of the delay. They base this stand mainly on traditional practice, developed over the past hundred years, particularly under the old renewal statute (repealed in 1939), under which a renewal application could be filed at will within a fixed time period after an application was forfeited for non-payment of the final fee.

In a recent case involving our firm, there was an unavoidable delay for more than six months in paying an estimated issue fee due to a clerical error, as a result of which we thought the issue fee had been paid when it had actually been paid in another case. We took the position that 35 USC Section 133 applies to the payment of issue fees, and that the Commissioner therefore should accept the fee if it was shown to his satisfaction that the delay was unavoidable. The Patent Office, while admitting that the delay was unavoidable within the meaning of Section 133, took the position that this section did not apply to issue fees, or even if it did, that it was overridden by section 151 which has a six months limit. The U.S. District Court for the District of Columbia held in our favor and the case has now been appealed by the Patent Office.

Even if our interpretation of the statute should prevail, however, it would still not make Section 151 palatable. Section 133 applies to prosecution of an application, and even if this includes the payment of the estimated issue fee, it still would not include the payment of the remaining balance of the issue fee, which is billed after the patent issues. Section 151 provides that if the remaining balance is not paid within three months after notice, the patent shall lapse. Even though there is a provision for delayed payment within a three months grace period, there is no authority in either Section 151 or 133 for accepting payment after that. A delayed payment of the remaining balance of the issue fee could occur for any one of a number of unavoidable reasons, such as loss of the notice in the mail, a clerical error as a result of which it is thought that the balance was paid, etc. The result is that for a mere \$10 or so, valuable patent rights could be forever lost to a person who has passed all the hurdles of examination and proved himself worthy of a patent.

It is my opinion that Section 151 was not carefully thought out, particularly with regard to protecting the victims of unavoidable delays in the payment of the issue fees. It would be a simple matter to correct this section, for example, by bringing it clearly under the umbrella of Section 133 or adding a paragraph on unavoidable delays in Section 151 itself. The drastic reduction of time for paying the issue fee (from 18 months to 6 months) made in 1965, has heightened the chances of hardship occurring under the present statute, and it should be revised. I would go even further and say that the whole idea of a remaining balance of an issue fee is unwise. It places an undue clerical burden on attorneys who must make sure these small sums are paid on time. It would be much better to have a law providing for collection of the needed money in a simpler way, such as a single issue fee which allowed for the average error in estimating the pages of the printed patent.

Thank you very much for your cooperation, and please feel free to call me if you have any questions. I am sending a copy of this letter to Senator McClellan's committee for their consideration.

Very truly yours,

RICHARD E. DIBNER.

E. S. DOWNS & Co.,
 Worthington, Ohio, January 23, 1968.

HON. JOHN L. McCLELLAN,
 Chairman, Senate Judiciary Subcommittee on Patents, Trademarks, and Copyrights, U.S. Senate, Washington, D.C.

DEAR SENATOR McCLELLAN: I am writing you to express the opinions of an individual or private inventor concerning the contemplated changes in United States patent laws. I am the owner of ten U.S. patents and about twenty overseas patents. Two of my inventions have been commercially successful bringing income to me and employment to many.

While much research and development in this country is done by large companies with well organized research teams, I feel there is still a large area for the individual inventor. There are many small, less complicated products that can result from the creativity of this man. These benefit the user and provide employment where it did not exist before.

The way of the individual inventor, however, is not easy. Not only does it take a great measure of devotion to the task but also is extremely risky. It is estimated that only 1% of all patents granted individual inventors make money. A new adverse factor is the lightning speed of technological development. Both of my profitable inventions enjoyed an income producing life of only five years because of unexpected scientific developments.

The individual inventor, quite restricted in assets compared to the large company, has already been hurt by the recent increase in patent fees. These have been increased about 400% in the past two or three years.

Certain provisions being considered in the pending changes in the patent laws are further going to hurt the individual inventor in my opinion. Specifically, these are:

1. ELIMINATION OF THE ONE YEAR GRACE PERIOD

The individual inventor, if he is prudent, tests his invention in the field and marketplace before he goes to the considerable expense of applying for a patent. If such experimental effort is considered prior public use, the inventor will be put in a dilemma. To a large company the cost of applying for a patent is not proportionately a big expense. To an individual inventor it may be a month's pay. Many worthwhile inventions may simply die on the vine. My own experience bears this out.

2. FIRST TO FILE

In the present law, of course, the man who actually invented the device first, or who can prove he did, is awarded the patent. I realize the contemplated change being considered is to eliminate the cumbersome and expensive interference procedure. However, correcting one evil with another is not, in my mind, the solution. The private or individual inventor must often disclose his invention to a prospective licensee before applying for a patent. Often this is the only way to know for certain whether or not he has a marketable idea. It is quite possible, if the invention is valuable, that the contemplated licensee might file for himself.

3. FILING A PRELIMINARY APPLICATION

Filing a preliminary application to be followed in twelve months by a complete application appears to me to be filing two applications for the same patent. I do not believe that a worthwhile preliminary application can be filed without a patent attorney. Furthermore, I do not think a preliminary application can be of value unless it is thoroughly done. In today's crowded art inventions depend on small differences in structure. Therefore, the preliminary application must be virtually as "complete" as the complete application twelve months later. I believe this change would hurt the individual inventor by increasing his patent fees.

I would like to ask that my remarks be included in the record. Thank you for the opportunity to express my views to the Subcommittee.

Sincerely yours,

EDGAR S. DOWNS.

STATEMENT OF JOSEPH O. EVANS, FEBRUARY 29, 1968

Mr. Chairman and members of the committee, my name is Joseph O. Evans, a licensed professional mechanical engineer who has been employed from time to time since 1932 by Registered Patent Attorneys as a patent draftsman, patent searcher, patent specification and claim writer and as an amendment writer. I have also, from time to time, been employed to interview patent Examiners concerning certain patent applications under consideration for allowance.

With only one exception, all of the registered patent attorneys for whom I have worked have specialized in handling patent applications for individual inventors; applications that have never gone beyond the final action by the Patent Examiner.

It is my belief that the United States Patent Office should be made an independent government agency and should be taken out from under the control of the Commerce Department. No matter how good a Commissioner of Patent may be, this gentleman cannot help but be under the influence of the Secretary of Commerce and his assistants. No man can be a master of all trades, and while the Secretary of Commerce and his assistants no doubt are sincere in their administration of the Patent Office, these gentlemen cannot possibly have a clear understanding of the patent problems unless they have had actual working experience in patents, and as far as I can find, not a single Secretary of Commerce nor any of his assistants have had this experience.

It is my belief that the first to invent, and not the first to file should be given the patent, otherwise the entire patent system will be automatically favorable to the large corporations who have the means of filing a patent application on each and every improvement its staff invents. The independent inventor is limited by his finances to the making of a relatively small number of patent applications.

It is my belief that the patent laws should prevent any examiner from going outside of the art to cite a patent against any patent application. After all, no inventor should be expected to be experienced in every art and to know exactly what has been done in each art.

It is my belief that the fees to be charged by the Patent Office continue to be under the control of Congress and that the Commissioner of Patents should not be given this regulative authority.

It is my belief that section 31 of the United States Code Title 35 Patents should be completely revised in light of the following known facts.

Patent Attorneys are actually divided into two distinct classes: those who either work directly for manufacturing companies or handle patent matters for manufacturing companies on a fixed fee or retainer basis, those patent attorneys who specialize in handling patent applications for the individual inventor and who never take any application above the final action of the Patent Examiner. In this later case, when an applicant desires to take his application to the Board of Appeals or to the Courts, the attorney almost always turns the application over to a patent attorney or lawyer who specializes in the above.

Admittedly, those who handle applications above the Patent Examiner's final action should be experienced patent attorneys. However, it is no more logical to require the thousands of attorneys who never take a patent application above the Examiner's final action to be patent attorneys than it is to require one who has a small boat to have the same education and experience as the captain of a large ocean liner.

According to Chapter II of the Patent Laws, a patent application consists of three items: a specification and claims, a drawing, and an oath. The first part, the specification, certainly requires a knowledge of engineering, the second part, requires the knowledge of drafting, and the third part can be typed by any first class secretary. Many patent attorneys know just enough engineering to pass the Patent Office Examination for Registered Patent Attorneys. Many of the attorneys then promptly hire specification and claim writers to write the specifications; the specification writers frequently writing the amendments when they come due. Very few patents attorneys are either qualified or experienced to make a patent drawing and certainly few can or do ever type an oath. Technically speaking, a patent attorney cannot even hire a typist to type up the oath. He must do all of the work of preparing a patent application himself.

One who takes the examination to become a registered patent attorney must answer questions or write a claim in a mechanical case, an electrical case, and a chemical case. No other profession requires a man to have such a broad knowledge. When one applies for a professional engineers license, he is examined in either mechanical, electrical or chemical engineering. If he wants a license in more than one field of engineering, he must take a separate examination in each field.

Actually, any professional engineer can write a patent specification and claims once he has read a few patents on the inventions of interest.

I, therefore, respectfully suggest that Section 31 of the patent laws hereinafter be called subsection (a) of Section 31 and that the following subsections be included in this Section 31:

(b) Any person, whether employed by a company or acting as an individual, who has been given a final rejection by the Patent Examiner and who desires to take the patent application to either the Board of Appeals or to the Courts, must be or must employ a Registered Patent Attorney as set forth in the above noted subsection (a) of Section 31 of the Patent Laws.

(c) A patent specification, claim, and amendment writer, who can prove that he has done such work for a Registered Patent Attorney or attorneys for two or more years, shall be permitted by the Commissioner of Patents to write patent specifications, claims and/or amendments.

(d) All patent specifications shall be written by a professional engineer, licensed by one or more states or the District of Columbia in the field of art in which the specification falls, i.e., mechanical, electrical or chemical, unless the specification writer comes within the requirements of subsection (c) of this section of the Patent Laws.

(e) Any inventor, desiring to file an application for a patent in the United States Patent Office, shall be permitted to have the assistance of one or more persons in so long as the specification and claims are written by someone meeting the requirements of section 31, subsections (a) to and/or including (d) in so long as the application for patent does not go beyond the final action of the Patent Examiner. In this case, the inventor must employ the services of a Registered Patent Attorney.

The Committee's attention is respectfully called to the testimony of Mr. Robert W. Cairns, President of the American Chemical Society, in which he makes a statement to the effect that chemists should be permitted to represent inventors in the preparation and prosecution (of chemical applications) before the Patent Office.

The President's Commission recommended that "[T]he Patent Office should proceed vigorously with implementing its plans for microfilm reproduction of all search files." This statement by the Commission clearly shows that not a single person who ever made this recommendation has ever done any amount of patent searching in the mechanical arts. Nor have any members of the Commission consulted an adequate number of persons who do patent searching. Microfilming of the patent search files of everyday search work is not practical for the following reasons:

(1) To put in a microfilm system would be to spend upward of fifty or more million dollars at a time when the Federal Government should be reducing its expenses.

(2) Microfilm patent searching is extremely hard on the eyes.

(3) Microfilm machines, even the best, require more or less constant attention from experienced service mechanics.

(4) It is impossible for one to compare different patents when the material is on microfilm. This comparison of patents is very necessary when one is making many patent searches in the mechanical arts.

(5) Under the present system, if a subclass of patents takes up more than one box, or shoe as they are called, one searcher can search one shoe and another searcher can search a second shoe. This will be impossible when many shoes of patents are all contained in one file cabinet drawer.

(6) The microfilm itself is very fragile and will constantly need to be replaced.

(7) If the patent copies are placed on cards, as is now planned, and the patent is a large one, there is no known way to keep all the cards of a given patent together.

(8) The small size of microfilm cards or rolls will cause them to become lost or misplaced.

(9) The nature of microfilm searching cannot help but slow up patent searching.

(10) Patent searching is an art that requires years of experience to obtain, therefore, the placing of a number of patent search rooms throughout the United States is both costly and impractical from the standpoint of staffing with experienced searchers, whether employed by government or industry.

It is respectfully suggested that a careful poll be taken among patent searchers before any microfilm system be permitted to be adopted by the Patent Office.

The Patent Office and others are concerned over the matter of the United States leading the world in formulating a World Patent System. While the gentlemen who are back of this suggestion are no doubt most anxious for what is best for the United States, they fail to realize that the United States issues more patents in one week than more than half of the patent offices throughout the world issue in an entire year. It appears to me that the idea of a world patent or universal patent is at least ten to twenty years away, if it will ever come about. The exact figures on the number of patents issued by foreign countries will be given on request.

If any of you gentlemen have any questions, you may care to ask me concerning the subject matter of this statement. I will be only too glad to answer them.

Respectfully submitted,

JOSEPH O. EVANS, P.E.

U.S. SENATE,
COMMITTEE ON THE JUDICIARY,
Washington, D.C., March 14, 1968.

Hon. JOHN L. McCLELLAN,
Chairman, Subcommittee on Patents, Trademarks, and Copyrights,
U.S. Senate, Washington, D.C.

DEAR JOHN: I am sending you a copy of a statement concerning Amendment No. 511 to S. 1942.

I would appreciate if you would have this statement enclosed in the hearing record on the bill. Also, I would appreciate it if you would send copies of the hearings when they are printed to the three organizations submitting the statement.

With kindest regards, I am

Sincerely yours,

SAM J. ERVIN, Jr.

A STATEMENT OF CONCERN, MARCH 1968

PROPOSED PLANT PATENT AMENDMENT (TO INCLUDE SEXUALLY PROPAGATED PLANTS)

With profound interest in plant research in North Carolina, both publicly and privately sponsored, we present the following as areas of deep concern and definite reservations with the proposed plant patent amendment. The following items of concern need very careful study before any action is taken:

1. Be extremely difficult to administer.

How or when would patents be issued from selections without hybridization, multilines, synthetics, blends, etc.? When is a variety different or unique? There are now an enormous number of hybrids, strains, varieties, blends or other so-called variety forms in the trade.

This number would no doubt increase manifold as "everyone" would have his own plant patent to promote. This, no doubt, would require an expansion within the patent office and could create mass confusion not only in that office but among buyers of seed.

2. Jeopardize the agricultural economy of our state (or country) in times of disease epidemic or other comparable emergencies which would maximize sales of a single or few patented varieties.

With possible specific resistance to a serious disease or insect in the hands of one or more individual agencies could either seriously restrict the resistant varieties distribution or be made available at a price which could be prohibitive.

3. Possible trend to apply for a patent on any experiment component or line that might have slight possibility as a commercial variety.

To completely protect one's breeding program, whether private, Federal or State, agencies would of necessity require patenting to carefully guard all use-

ful breeding material. This would also force public agencies to apply for public patents for all new varieties released. There is generally a good working relationship existing between private and public breeding agencies. This relationship could change quickly with the implication of plant patents.

4. Plant patents could seriously limit the free exchange of germ plasm and information pertaining thereto among all plant breeders (private and public).

The USDA and state experiment stations are active in plant breeding programs as well as development of basic genetic materials. It is very probable that the free interchange of germ plasm would be greatly restricted, if not eliminated.

5. Essentially eliminate or seriously restrict regional test of unreleased breeding lines.

Preliminary evaluation of "experimental" varieties before their release is very important. To guard against possible loss of one's "outstanding" line would require very close supervision and severely restricted use of advanced testing programs.

We urge that full consideration of the above mentioned items of concern be given by all affected parties, namely: public agencies involved with research, regulatory and extension along with private or commercial seed producers, breeders and seedsmen as well as seed certifying agencies. The objective of such a study should be to develop the most workable form(s) of plant protection for the good of all concerned, including the general public.

N.C. STATE UNIVERSITY'S CROP SCIENCE DEPARTMENT.
N.C. CROP IMPROVEMENT ASSOCIATION.
N.C. FOUNDATION SEED PRODUCERS, INC.

FOREMOST FOODS CO.,
RESEARCH AND DEVELOPMENT CENTER,
Dublin, Calif., March 13, 1968.

MR. THOMAS C. BRENNAN,
*Chief Counsel, Committee on the Judiciary,
Subcommittee on Patents, Trade Marks, and Copyrights,
U.S. Senate, Washington, D.C.*

DEAR MR. BRENNAN: In your letter to us dated February 12, 1968, in response to our request to appear and offer testimony concerning features of the proposed Patent Reform Act, you offered to receive and enter our written statement into the official printed record. Attached are two copies of such statement.

We are sorry we were unable to give direct testimony but hereby express our appreciation for your offer to receive our written statement.

Sincerely,

CLAYTON A. KEMPE,
*Assistant to the Vice President,
Director, Research and Development.*

PRESENTATION TO BE USED IN HEARINGS ON PROPOSED PATENT REFORM ACT,
H.R. 5924, MARCH 13, 1968

Name of Corporation represented by the witness.—Foremost Foods Company—a division of Foremost-McKesson, Inc., Headquarters at 111 Pine Street, San Francisco, California (Incorporated in State of Maryland).

Principal Business of the Company.—Foremost Foods Company engages in processing and distributing a complete line of fresh and frozen dairy products. These operations are located principally west of the Mississippi River. The company operates 37 processing plants across the United States and Canada and produces manufactured milk and whey-based foods, ingredients for foods, feed and pharmaceutical products. The food industries served include the baking, canning and frozen food industries, among others. Very important are its ingredients for use in the infant food field. The Company markets convenience food items for the consumer. It has operations in 20 countries throughout the world, many of which produce a full line of dairy products employing modern recombining processes employing dehydrated ingredients.

Past, Present and Anticipated Future Importance of Patents in the Development of the Company.—Foremost Foods Company concurs with the conclusion of the National Industrial Conference Board in its affirmation that the U.S. Patent System has been a major contributor to the phenomenal growth of American industry and the nation's standard of living and gross national product. This

company has much concern and apprehension toward several of the basic changes provided in the proposed Patent Reform Act. We fear that certain of the proposed changes will undermine seriously the protection afforded by the present law, without which neither the creative individual nor the progressive corporation could hope for the economic shelter necessary in order that the effort and investment of money, required always to reduce an invention to practice, to develop markets and to create production facilities, can be hazarded.

Foremost Foods Company and its antecedents, Golden State Company, Ltd. and Western Condensing Company, over the past 50 years have based their programs for development and growth heavily on patents. Over this period of time over 200 U.S. patents have been secured. Currently the company holds rights under or owns approximately 90 U.S. Letters Patents. In addition, Foremost Foods Company either owns or is seeking more than 150 foreign patents.

Foremost last year received for the second time in 12 years the coveted Industrial Achievement Award of the Institute of Food Technologists. The first was received in 1955 by one of its predecessor companies, Western Condensing Company, and was awarded for its development and successful marketing of Instant Milk. The second was awarded for the successful development and commercialization of a revolutionary invention to improve several bread and roll manufacturing processes.

Another predecessor, Golden State Company, Ltd., pioneered in the production of equipment and processes to prepare dried milk products and controlled heat treatments necessary for the suitable manufacture of the instant milk products. This company likewise pioneered in processes for HTST production of various milk concentrates making possible new products for any feeding.

During the second World War, the need for milk sugar (lactose) suddenly tripled and quadrupled because it was required in a new fermentation process to produce penicillin. The penicillin was needed, of course, for use both by armed forces and civilians. No suitable processes existed capable of producing lactose of the grade and quantity needed. Our company was able to step into the gap and through the inventive abilities of its scientists and engineers create the required processes and equipment, and to supply the needed lactose in the course of relatively few months. This was possible because our company could rely on the provisions of the patent law which provide the one-year grace period between public use and the filing of a valid application for U.S. Letters Patent. It is our conviction that the proposed change to the "First-to-File" principle and elimination of the one-year grace period would actually inhibit rather than promote the publication and use of many of the most significant inventions.

None of these achievements would have been possible under certain of the provisions of the proposed new bill. Such developments as these may be considered fundamental or basic inventions requiring some time and exposure in the commercial arena and in the market place in order to gain information necessary in the preparation of proper patent applications and claims confidently setting forth the scope and limits of the invention.

Foremost and its Divisions since 1951 and their predecessors named above, together have maintained research and development programs continuously for more than 25 years—programs requiring the capabilities of highly-trained biochemists, nutritionists, food scientists, and electrical and mechanical engineers. This continuing program has resulted in the creation of entirely new businesses in lines of food and feed products and processes that did not before exist. In numerous instances, expensive and time-consuming development of entirely new and sophisticated equipment and processes has been required for successful commercialization of the invention.

Our witness will testify to the effect that the following features of the proposed Reform Act would damage public welfare in terms of decreased benefit resulting from successful development and marketing of inventions.—(1) Elimination of the one-year grace period. (2) Elimination of interference proceedings and "First-to-File" provisions. (3) Unqualified requirement to publish applications within two years of the filing date. (4) Preliminary applications and provision for delayed examination.

Certain features of the proposed Reform Act can be considered acceptable. Our witness will endeavor to identify these and to suggest alternatives to certain of the more objectionable provisions of the proposed Act.

QUALIFICATIONS OF WITNESS

I. *Name*.—Dr. Clayton A. Kempf.

II. *Present position in corporation*.—Assistant to the Vice President/Director of R&D of Foremost Foods Company, with assignment of responsibility for coordination of technical aspects of the patent program of the company.

III. *Length of service and job experience in corporation*.—The witness has been in the service of the corporation for more than 26 years in different capacities relating to the research and development activities of the corporation. He has served in succession as Research Chemist, Senior Research Chemist, Research Supervisor, Research Superintendent, Director of Research, and Assistant to the Vice President/Director of R&D. During all of this period, the witness has worked with one or more aspects of inventions and patents. He has participated as an inventor, as one reducing others' inventions to practice, as co-inventor, as supervisor, and as technical liaison between inventors and patent attorneys. For the last 12 years, he has participated on numerous occasions in interviews with the examiner. He is familiar with the present requirements for the maintenance of invention records. He has first-hand knowledge of the operation of the interference proceedings to determine the original inventor. The witness has some practical knowledge of the dominating economic factors operating in the process of introducing, successfully, inventions to the market place.

IV. *Education*.—The witness holds two advanced degrees from universities with majors and minors in biochemistry, nutritional chemistry, physiology, and bacteriology. He is a member of several professional societies.

TESTIMONY

1. *Undesirable consequences of the elimination of the one-year grace period for filing an application for a patent in the U.S. Patent Office*.—(a) Will increase markedly poor invention disclosures and poorly claimed inventions. (b) Disclosures in "preliminary" applications will be inadequate in quality to satisfy priority of filing date for purposes of foreign filing. (c) Will repress commercial testing of inventions because of "public use" prohibition. (d) Promote issuance of inferior patents because of the lack of proven examples for practicing the invention. (e) Will cause inordinate emphasis on the "Know-How" provisions in licensing agreements under the patents resulting.

2. *Undesirable consequences of elimination of interference proceedings and the lack of provisions for the First-to-Invent or the first to invent in cases of derivation, or in cases of misappropriation or stealing*.—Our patent attorney advises us as follows:

Neither the present patent law nor the proposed Patent Reform Act contain fully adequate protection for the Common Law property rights of the inventor to his invention. The common law has always recognized a property right in an invention and it protects this property right as long as it is in the hands of the inventor or owner. The California State Code Section on this matter reads as follows:

"Civil Code, Chap. 3, § 980: Ownership; composition in letters or art; invention or design.

"(a) The author or proprietor of any composition in letters or art has an exclusive ownership in the representation or expression thereof as against all persons except one who originally and independently creates the same or a similar composition.

"(b) The inventor or proprietor of any invention or design, with or without delineation, or other graphical representation, has an exclusive ownership therein, and in the representation or expression thereof, which continues so long as the invention or design and the representations or expressions thereof made by him remain in his possession."

The interference procedure now provided by our patent statutes not only provides for determinations as to priority between two rival inventors, but also determinations as to whether one inventor has derived his invention from the other. However, this is only a limited remedy for situations where inventions are stolen or misappropriated.

If the present interference practice should be abolished, as for example by the new proposed Patent Reform Act, then the patent system would have no provision whatsoever for giving redress in the event of derivation. Section 105, "Non-prejudicial Disclosures" of H.R. 5924, permits an applicant to overcome an earlier disclosure by another, but the provisions of this section are quite limited.

One must show that the party making the earlier disclosure operated in violation of an obligation not to disclose. Also this section does not apply to situations where two parties file patent applications for the same invention and the first to file has derived the invention from the second.

In general, we have no statutory provision that would give adequate redress in instances where A appropriates an invention from B and then obtains a patent under such circumstances that B cannot then institute interference proceedings against A. B may be barred from filing because of a public disclosure. Under such circumstances, proceedings should be available to B which would make possible transfer of ownership to B with proper change in the name of the inventor.

The above inequitable situation would be intensified under the proposed Patent Reform Act, which would grant the patent to the first to file irrespective of priority of invention.

A remedy should be provided by statute to take care of the above inequity. This could be comparable to section 17 of the British Patent Act. The Commissioner of Patents should be authorized to make the necessary change as ordered by a Federal Court. The Federal Courts should be given exclusive jurisdiction of such actions.

3. *Undesirability of unqualified requirement to publish applications within two years of filing date.*—It is our belief that the inventor or the owner of the invention covered in an application should be granted, at the time the application is to be published for interference purpose, the right to abandon and to keep the invention secret. The inventor or owner of the invention may justly conclude that his rights and interests will not be adequately served by the grant indicated by the Patent Office.

§ 137. *Burden of persuasion.*

This provision is an important change that should be more limited in its application, to a question of obviousness under the proposed § 103.

5. *A number of the provisions of the proposed bill are deemed desirable. These include the following examples.*—

(a) § 111. Application for a patent.—This provision, permitting the owner of an invention to file the application, provided that he names the true inventor, is desirable.

(b) § 115. Oath of Applicant.—The provisions of this section are compatible with § 111 and necessitated thereby.

(c) § 116. Joint inventor.—The provisions of this section are highly desirable.

(d) § 118. Action where no oath or assignment can be obtained.—Desirable.

(e) § 136. Re-examination after publications.—It is our belief that the provision for publication for opposition purposes, and subsequent re-examination, can be beneficial, provided, however, that the Patent Office performs an optimum examination before publication. Inadequate examination before publication is to be deplored.

CLAYTON A. KEMPF,
*Assistant to the Vice President,
Director, Research and Development.*

CIBA CORP.,
Summit, N.J., March 26, 1968.

Hon. JOHN L. MCCLELLAN,
*Patent Subcommittee, Senate Judiciary Committee,
Senate Office Building, Washington, D.C.*

SIR: In his letter of February 21, 1967 transmitting the Patent Reform Act of 1967 to Congress, President Lyndon B. Johnson said:

"It is now time to apply the 'first to file' rule to the U.S. patent system."

This concept was also recommended after an intense review of our Patent System by the President's Commission on the Patent System, a commission of leading American citizens appointed by the President to study our present Patent System.

I feel strongly that we should adopt the first-to-file concept in our Patent System and have set forth the reasons why in the enclosed article which appears in the October, 1967 issue (just published) of the Journal of the Patent Office Society, pages 699-712 inclusive.

You may wish to consider this article in your consideration of the President's Patent Reform Act of 1967, and make it part of the record of the Hearings.

Sincerely,

HARRY GOLDSMITH, *Patent Counsel.*

[From the Journal Patent Office Society, published October 1967]

WHY NOT A FIRST-TO-FILE SYSTEM?

(By Harry Goldsmith)

Nothing will ever be attempted if all possible objections must first be overcome—Samuel Johnson

What has been referred to as perhaps the most significant and far reaching, and also the most controversial, of the recommendations of the President's Commission on the Patent System is the first-to-file system of priority which has been incorporated in the so-called Patent Reform Act of 1967, Section 102. This has been interpreted as meaning that the patent would be granted to the applicant who first filed, not necessarily to the "first" inventor.

In the "Sectional Analysis," accompanying the proposed Patent Reform Act, it is explained as follows:

"As between two or more applicants for a patent on the same invention, the patent would issue to the first to file. This results from providing that the disclosure of an application, when published, constitutes prior art as of its effective filing date against all later filed applications.

"The determination of who was the first inventor would be rendered unnecessary.

"The time at which an invention was made would cease to have significance.

"There would be no 'grace period'.

"Knowledge, use or sale in a foreign country would not be excluded as 'prior art'."

It is interesting to note that various patent law associations, including the American Patent Law Association, the Patent Section of the American Bar Association and the Patent Committee of the National Association of Manufacturers have indicated their disapproval of the first-to-file system.

In view of the controversial aspects of this provision, it may be interesting to examine what the situation is under our present patent law and how far away we may be from, or conversely, how near we may already be to a first-to-file system. And what about the dire predictions of disaster made by the opponents if such a system is introduced—are they based on fact or fancy?

To a large extent and for all practical purposes, we already have a first-to-file system—for foreign inventors and also for certain United States inventors. Why? Because Section 104 of the present Patent Act limits foreign applicants to their foreign filing dates.¹ This, in effect, means that for the foreign applicant and, yes, even for the U.S. applicant who happens to make the invention abroad, the present system is a first-to-file system. Section 104 in barring not only foreign applicants, but also U.S. applicants (except those abroad in civil or military duty) from relying on acts abroad to establish a date of invention, discriminates against both, since the domestic inventor may establish a date of invention prior to his filing date, whereas the former cannot. As a matter of fact, foreign applicants have expressed their unhappiness about this discrimination and questioned the fairness of our system. By not being permitted to rely on acts done abroad, they feel we do not trust them. In today's world with more rapid communication, extensive travel, and many U.S. companies sending their researchers abroad to work in their foreign laboratories, this discrimination also means that our present system for these persons is a first-to-file system.

In this connection, certain statistics may be of interest as to how many inventors are involved in our, to them, already existing "first-to-file system."

It is estimated that in 1972 of the 100,000 patent applications which will be filed in this country, 30,000 will originate abroad; and that 30,000 of the remaining 70,000 originating in the U.S. will be filed in an average of five countries abroad. In effect, then, it would seem that a great majority of applicants are already today voluntarily or by compulsion operating on a first-to-file system since they can only rely on a Convention priority date here or abroad as the case

¹ In re Risse et al., 154 USPQ 1 (CCPA, 1967).

may be. Other applicants of the remaining 40,000 U.S. originated applications apparently will not have considered their inventions to have been of sufficient importance to warrant foreign filing.

Under the present law the first to file is presumed to be the first inventor, so even with respect to domestic inventors we have a presumptive first-to-file system, and the inventor who dillydallies and delays filing his application will, in most cases, find that the patent will go to another.

Rule 257 of the Rules of Practice in Patent Cases warns him as follows:

"The parties to an interference will be presumed to have made their inventions in the chronological order of the filing dates of their applications for patents involved in the interference or the effective filing dates which such applications have been accorded; and the *burden or proof will rest upon the party who shall seek to establish a different state of facts.*" (Italics added.)

The first-to-file aspects of the present system have not brought on disaster. As between two foreign applicants who get involved in an interference, there is no unusual difficulty in deciding who is entitled to the patent on the basis of who has the earliest filing date, U.S. or Convention date. Usually, in the absence of the party's U.S. application or foreign Convention application, which has the first filing date, being defective for some reason, the award goes to the one who establishes the earliest Convention date; that is, has the first filing date. Likewise, under the proposed first-to-file system the Examiner, *ex parte*, would presumably make the same determination. Likewise, as between two applicants, presumably even the second-to-file could still get a patent if he can show that the first filed application cited against him is defective as a disclosure of the invention, e.g. inoperative, or that the process set forth cannot produce the invention. It would thus appear that the operation of the first-to-file system should simplify rather than complicate patent granting procedures.

Nor is the concept of a first-to-file system by any means foreign to scientific circles. As a matter of fact, in scientific circles the "first-to-file system" has been recognized to establish scientific priority. When an article is presented for publication in a scientific journal, the date of receipt is generally recognized as the date of establishing scientific priority for the author or scientist presenting the paper, and the receipt date is printed in the publication. The person who had confidence in the validity of his work and in his disclosure by first presenting it for publication is regarded as worthy of being accorded scientific priority as against one who may later submit for publication.

Nor is the concept of a first-to-file system illogical when one considers the nature of the processes of invention and innovation. The special Panel on Invention and Innovation of the Department of Commerce in its report "Technological Innovation: Its Environment and Management" (January, 1967, U.S. Government Printing Office) asked the questions: "What is Invention? Innovation?" Its answer:

"Invention . . . TO CONCEIVE . . . The idea.

"Innovation . . . TO USE . . . The process by which an invention is translated into the economy.

"* * * [I]nvention and innovation encompass the totality of processes by which new ideas are conceived, nurtured, developed and finally introduced in the economy as new products and processes * * *

"We need to bear in mind that the path between an invention (or idea) and the market place is a hazardous venture, replete with obstacles and substantial risks. It is ordinarily a very costly, time-consuming, and difficult task that the innovator faces."

A breakdown of cost and effort by the Panel, indicates that the step we commonly call research, advanced development or basic invention, the invention stage, accounts, typically for less than 10 percent of the total innovation effort. The other components (engineering and designing the product, tooling and manufacturing-engineering, manufacturing start-up expenses, and marketing start-up expenses), which we do not usually associate with the innovative process, account for something like 90 percent of the total effort and cost.

Typically, the patent application for the product or process which underpins the invention is filed during the idea or research stage. It may take five, six or more years before the innovative process is completed, and both the inventor and his financial backer wish to know as early as possible whether and what scope of patent protection are obtainable; the inventor, because he may be more successful in finding a financial backer for the venture capital necessary for the innovative process, if he can show the backer that he has filed an application or

already has obtained a patent; and the financial backer, because he wants to be assured that there is the likelihood of protection for the high risk capital required to bring the invention to the market place, and the likelihood of high potential return for his venture capital.

It would be folly to wait for the five or more years until the invention has proved to be ready for the market place before filing the patent application. Usually and typically in today's world of rapid communication and exploding technology, the application is filed for while the invention is still in the early stage of research and development—before the invention is fully tried out—and as improvements are made continuation-in-part applications are filed. When a mechanical invention is made, its usefulness and operability—or lack of them—are usually predictable, practically from the moment of conception of the apparatus. On the other hand, in chemistry prediction is limited, and whether a chemical will end up as a drug useful as a cure for diseases in humans may take from five to seven years of animal and human testing and several million dollars in costs. Here, too, it would be folly to wait for the clinical results before filing for a patent application. On the contrary, most inventors in this field file while the compound is in the early research stage, as soon as laboratory tests show a desirable property in experimental animals such as the mouse, rat or dog.

Thus, the processes of invention and innovation by their very nature, even under the present patent system, call for prompt filing of patent applications by inventors and their attorneys. Accordingly, the first-to-file system may not represent such a significant or far-reaching change as appears on first glance. Is it to be condemned if it should happen that it would even more greatly facilitate prompt use and disclosure of inventions than the present system? On the contrary, the benefits which it may introduce should recommend its full adoption into our patent system.

What are the main objections to a first-to-file system? They appear to be the following: (1) interferences will be abolished, and (2) since priority will be entirely on the basis of first-to-file rather than first-to-invent, it will lead to a race to the Patent Office which will be won by the big corporation on the assumption that the big corporation can run faster than the small or lone, independent inventor.

The two reasons add up really to one: The "first true" inventor may not necessarily be the one who will get the patent. But this is the case under our present system under which various policy considerations might well operate to prevent the award of the patent to the actual inventor. Not all interferences conclude by the grant of patent to the first inventor in fact, *Mason v. Hepburn*, 13 App. D. C. 86 (1898); *Woolfster v. Carlson*, 54 CCA —, 367 F.2d 436, 151 USPQ 407. Nor, is an inventor entitled to a patent if "he has abandoned the invention" [Section 102 (c)]. And, one who is not the actual first inventor may nevertheless obtain a patent, if another who is, abandoned, suppressed or concealed it [Section 102 (g)].

Another example of where the first inventor may not obtain the patent is the case where the disclosure is held to be insufficient under 112 and the application is considered to be fatally defective. Thus, in the case of patent applications on pharmaceuticals or chemical compounds, an inadequate disclosure of the use of the new compounds sought to be patented, or the manner of using them, although the products are on the market, may result in a refusal of the patent to, or loss of an interference by, the first inventor because of such inadequate disclosure.

Also, even where the application complies with Section 112, a holding by the Examiner that the proof of utility in a pharmaceutical case is insufficient may result in the first inventor of the chemical compound involved not being awarded the patent.

Furthermore, our present system permits granting the patent to one who is not actually the first inventor since it excludes as "prior art", public knowledge, use or sale of the invention abroad, even where it establishes that the invention was made by another. Is there not a contradiction in opposing a first-to-file system because it would not grant the patent to the first inventor, and, as many do, at the same time oppose making such prior knowledge, use or sale abroad "prior art" against the later inventor?

In addition, under the present system an applicant, by an affidavit, may swear back ex parte of any publication, or U.S. or foreign patent less than a year prior to his filing date, which discloses the invention, although the author or patentee may, in fact, be the first inventor.

Thus, one may question the extent to which our system is one that assures that the first inventor is always awarded the patent.

One might ask whether the abolishment of interferences by the first-to-file system will involve any great injustice, unfairness or hardship, and whether it will in effect harm and disrupt the patent system. How many inventors would be affected by the first-to-file system? In this connection Dr. Holloman testified that out of 204,000 applications pending in the Patent Office approximately 2,400 are involved in interferences. This means slightly more than 1 percent. There was no breakdown given of the number of applications involved in the interferences belonging to the small, lone, independent inventor or to the company inventor. Or, whether it is the small inventor who is the junior party that normally wins the interference, or whether it is the company inventor. The assumption may not be incorrect that the small inventor, who is usually unfamiliar with patent practices, probably is inadequate in his record keeping necessary to establish earlier dates, and generally comes out on the losing end of interferences whether he is the junior or senior party. Accordingly, it is conceivable that the small inventor would be better off under a first-to-file system. It would be interesting to make a study to determine the actual situation in those interferences where the junior party is the winner, and those in which the senior party is the loser to determine whether the party is the small inventor or the corporate inventor.

It may be noted that representatives of the small inventor and small business have testified before Congress *in favor* of a first-to-file system. The American Society of Inventors spoke for first-to-file (Hearings on S. 2, S. 1042, S. 1377 and S. 1691, Before the Patent, Trademark and Copyright Subcommittee of the Senate Judiciary Committee, May 17-18, 1967, eighth page of Statement, to be inserted on p. 273), as did General Counsel Philip F. Zeidman for the Small Business Administration (Hearings on H.R. 5924 Before Subcommittee No. 3 of the House Judiciary Committee, Beginning April 17, 1967, pp. 217-18). Mr. Henry J. Cappello, representing the National Small Business Association, stated that "in taking a position in support of the first-to-file concept, we disagree with the contention that such a system discriminates against small business." (*Id.* at 234.)

It may also be desirable to study the experience in other countries having a first-to-file system, to determine whether this has resulted in an adverse effect on the patent protection obtained, the quality of patent applications filed, or a rush to the Patent Office. Also whether the inventors in those countries feel that there is anything unfair or inequitable about the first-to-file system.

One may ask whether our system is really helped by a provision such as Section 135(b) which leaves an issued patent in doubt for one year after it is granted. Under this section the "first inventor" can sit back for a whole year after a patent has issued before he need seek an interference by filing an application for the same invention or copying the patent claims in a pending application.

One may ask whether the entire interference concept is not really out of keeping with the basic philosophy underlying our patent system, (or any patent system) which was early expressed by Thomas Jefferson (who was the first administrator of our patent system) and which was recently reiterated by the Supreme Court in *Graham et al., v. John Deere Company*, 148 USPQ 459 (1956); namely, that the patent monopoly "was a reward, an inducement, to bring forth new knowledge" as against keeping the new knowledge secret. Logically, is it not then more in keeping with the disclosure promoting concept underlying the patent system, that the person who takes the first steps to make the knowledge (invention) available to the public; that is, the one who files first, is the real inventor to be rewarded?

The question may be raised whether the concern expressed by many that a first-to-file system will result in a substantially greater rush to the Patent Office than under the present system, which already necessitates prompt filing, if you want that all-important filing date—is not more fancy than fact. After all, there are built-in brakes against such a rush. For example, as under the present law there are the strict requirements for a description that Section 112 makes for a complete application, and which apparently will also be required for a preliminary application if it is to generate an "effective" filing date [Section 120(a)(2)]. Strict examination procedures requiring full and complete disclosures are a deterrent to filing half-baked, poorly and inadequately prepared applications, and, in the long run, the relative positions of the applicants will most likely be

the same position as under the present system, under which one can also rush to the Patent Office to get that all-important filing date, but under which one appreciates, with the strict requirements of Section 112, that ill-prepared, incomplete applications cause more headaches and problems and loss of rights.

Why, therefore, should there develop any greater rush to the Patent Office than under the present system? Will those applicants for whom, as pointed out above, the present system is already a first-to-file system do any more rushing? Might not the present system, with its discrimination against foreign applicants cause them to rush more because they know the domestic applicant can go back to a date earlier than his filing date?

May the preliminary application recommended by the Patent Commission as a replacement for the grace period result in a rush to the Patent Office? Maybe, but not likely for any length of time. The Commissions' report and the testimony of the Commissioner of Patents before the House of Representatives Patents Committee, in indicating that the preliminary application could be prepared by one having little knowledge of patent law and that it could be an informal disclosure, gives the impression that almost any kind of disclosure could be quickly dumped into the Patent Office and constitute a preliminary application, generating a filing date. On the contrary, reading Sections 111, 112 and 120 together, it would seem that, except for the omission of claims, such a preliminary application would have to meet the other strict requirements of Section 112 for an adequate disclosure, although the Sectional Analysis also "emphasizes the informality of the preliminary application". Also, it should not be overlooked that the preliminary application would have to be properly prepared if it were to be considered as a priority document acceptable under the International Convention.

To a certain extent, there is already a preliminary patent application practice built into present Section 120. The parent application and subsequent continuation-in-part applications are in effect preliminary applications, except the final continuation-in-part application, which may be regarded as the complete application. Because of the way inventions develop, particularly in the case of new chemical compounds, frequently two or more continuation-in-part applications are filed within the Convention year. The parent and those CIP applications (which may be regarded as preliminary applications) previous to the last filed CIP (which may be regarded as the complete application) are often eventually dropped. One may accordingly question the desirability of tacking on to the system an "informal" (?) preliminary application, when the situation may be adequately handled under present Section 120. A nominal filing fee for the parent application, say \$10.00, as proposed for the preliminary application, might encourage early filing by reducing expense.

It is interesting to note that of the 77 countries which belong to the International Convention, all but the U.S., Canada and the Philippines are on a first-to-file system. A selected survey of whether these countries have experienced a rush to the Patent Office and the filing of inadequately prepared applications could be made. At a recent conference of the Patent, Trademark and Copyright Institute the vice-president of a large chemical company who was on the program was asked whether his company which obtains many foreign patents and, therefore, in foreign countries can rely only on their U.S. Convention date, would be inclined to rush into the U.S. Patent Office with their applications any more quickly than they do now if the proposed new law went into effect. His answer was that he did not think they would. This suggests that a study would lead to many others feeling the same way.

In considering the advantages of the first-to-file system, one should ask whether it is not highly desirable to have a definite, readily determinable and legally fixed date for an invention and whether the filing date is not the best way of establishing such a legally fixed date? Would it not replace uncertainty by certainty? An example: It would eliminate the present situation where patents for the same invention are granted to two different inventors. For instance, the situation arises where the second to file in the U.S. may obtain the patent on the basis of being able to prove that he made the invention before the first to file. However, in all foreign countries where only the first to file is recognized as the inventor, the first to file in the U.S. would, under the Convention, be regarded as the inventor and granted the patents abroad, so that the U.S. inventor is only recognized as the first inventor in the U.S. and not in the other countries and only gets the U.S. Patent. Under the first-to-file system such division of patent rights would not occur, since there would be a single recognized and legal international filing date.

Would not a first-to-file system also result in the greater reliability and quality of U.S. patents; substitute for the delays and expense of interference proceedings a fair, simple and inexpensive means by which an inventor can establish priority; reduce the time and expense of obtaining patents; and be a move toward a more harmonious body of international patent law, in that it would be in harmony with practically all the other countries of the world in recognizing a single legally fixed date of invention? It is interesting to note that in the various proposals made for a European patent, regional patent systems such as the Scandinavian system, the Model Law for Developing Countries on Inventions, the African and Malagasy Industrial Property Office, set up by twelve African and Malagasy states to grant a common patent, and now the recently proposed Patent Cooperation Treaty—all are based on a first-to-file system.

When all factors are considered, it would seem difficult not to come to the conclusion that the benefits of a first-to-file system would very likely outweigh the possible adverse effects.

To substantially overcome the basic reservations against a first-to-file system, it could provide for:

(1) A so-called prior user's right, where one who has practiced, or made substantial preparation to practice the invention before the first to file, would be given a personal right to continue such practice.

(2) A grace period for disclosures by or derived from the applicant.

The prior user's right could be analogous to and determined in each case in the same manner as intervening rights are now provided for and determined in Section 252 in connection with broadened reissue patents.

In considering the need for a "grace period", one may ask how much it is relied on in present times, and whether reliance thereon is not dangerous? By "grace period" is generally meant a public disclosure of subject matter concerning the invention as by description in a printed publication in this or a foreign country, or by prior public use or sale in this country less than one year prior to the date of the filing of the application therefor (Section 102).

It would be interesting to have a study made to determine how often the inventor knowingly and deliberately takes "advantage" of this grace period in today's rapidly advancing technology. Normally an inventor is very secretive about his invention. Normally, does not the patent attorney warn the inventor not to publish, use in public, or sell, or test market his invention before he has at least filed a patent application therefor? The attorney is well aware, too, that test marketing has its limits, as stated by the CCPA in *Woolf v. Carlson, Supra*; namely, that one who delays filing a patent application alleging dependence on industry acceptance before proceeding with the filing of the application or production, does so at his own peril, for such conduct also is persuasive of suppression or concealment.

Does not the attorney warn the inventor that public disclosure made in reliance on the U.S. grace period would forfeit his foreign patent rights? It is not the general practice in industrial and other research laboratories to hold up publication of their inventions until at least the U.S. application is filed, and in many cases even until the end of the Convention year, or until the foreign applications are filed? Are not the testing, the "proving out", and the feasibility studies usually done in closely guarded secrecy, which, of course, does not involve a "grace period"? Accordingly, for practical purposes, all that may be needed is the "grace period" provided for under proposed Section 105 to prevent an unauthorized public disclosure of an invention from constituting prior art.

In summary, it may be stated that the first-to-file concept is not really new either to our patent system or to the scientific world and, accordingly, the proposal now to embody fully this concept into our patent law, in effect, seems to be in line with practices already built to a large extent into our hybrid system, and into the great majority of other patent systems, one existing regional system and in several other proposed regional systems, as well as in the scientific world in general. If the U.S. would close the existing gap, no doubt Canada and the Philippines would follow, and a great step toward a universal patent system would have been made. By adopting such a system the U.S. would not only likely improve its own system, but also its own image in removing a grievous discrimination against the foreign inventor. At the same time, it would strike a blow for collaboration and unity in the industrial property field throughout the world.

That there should be doubts and reservations in changing to a first-to-file system is natural, but we must not overlook that there are also many opportunities. We say, and rightly so, that science and advances in technology have changed

the world, but why should we steadfastly refuse to admit that we should change anything that we have been doing, particularly when a change may result in even better protection of the rights of those who are the generators of that science and technology, and at the same time serve the interests of the public?

ILLINOIS STATE CHAMBER OF COMMERCE,
Chicago, January 25, 1968.

Hon. JOHN L. MCCLELLAN,
Chairman, U.S. Senate Subcommittee on Patents, Trademarks, and Copyrights,
Senate Office Building, Washington, D.C.

DEAR SENATOR MCCLELLAN: Attached is a copy of my statement in support of S. 2597. I am a partner in the law firm of Hume, Clement, Hume & Lee in Chicago and chairman of the special subcommittee on patents of the Legislative Committee of the Illinois State Chamber of Commerce. The statement reflects the policy of the Illinois State Chamber of Commerce in support of S. 2597 which provides for a general revision of the patent laws, Title 35 of the United States Code.

This statement is presented on behalf of the Illinois State Chamber of Commerce, a statewide organization with a membership of more than 19,600 businessmen, representing over 8,000 individual business enterprises located in 478 cities and towns in Illinois. The State Chamber's Legislative Committee is comprised of 87 individuals representing many types of business ranging from the self-employed to those associated with the nation's largest corporations.

Our Committee has given serious study to S. 2597 and we approve the purpose of this legislation and urge you and your special subcommittee to endorse it. We believe the content of Senator Dirksen's bill would bring our patent laws up to date and maintain those principles in the law that have helped to make it one of the finest in the world.

We respectfully request that this statement be made a part of the record of the hearings of your subcommittee on S. 2597.

Sincerely yours,

JAMES M. WETZEL.

STATEMENT OF THE ILLINOIS STATE CHAMBER OF COMMERCE
IN SUPPORT OF S. 2597

Of the fifty states, Illinois is, in dollars volume, the largest producer of manufactured goods and the leading exporter of manufactured goods into the international market. The substantive benefits which our patent system brings to industry in Illinois are not questioned. We feel that the unchallenged leadership of American products is attributable in a significant part to the patent environment in which those ideas and products are spawned and matured. In our view the S. 2597 which provides for general revision of the patent laws will maintain and further these advantages.

In this country our patent laws protect the first inventor and the product of his inventive abilities, while giving him at the same time the leeway toward making the necessary marketing preparations for his product. For a limited time he may test prototypes publicly, make market surveys, communicate and exchange information and even sell the inventive product. At the end of that time he may file an application for patent or if the practical results of his efforts are disappointing he may go back to the drawing board to try once more. This opportunity is unique in the U.S. patent system as compared to other patent systems and we feel that these features are enhancing to successful product development and must be maintained.

Some aspects of our current patent laws have proven themselves burdensome, or undesirable, or now appear to be attainable by means different from the methods currently employed. Those problems must be responded to. Accommodation of our U.S. patent laws to permit international standardization of patents as to form and to facilitate an international patent search also seem important to industry in Illinois.

The Illinois State Chamber of Commerce has reviewed the patent legislation currently before Congress. It takes a strong position against the Administration Bill S. 1042 because its proposals, in general, are not sound and are in fact contrary to the directives of good judgment based on experience. Passage of such

legislation we feel, would erode the strength which the patent system gives to U.S. industry and technology.

Of the other comprehensive patent bills before the Senate, S. 2597 responds most precisely to the current needs of our economy. It preserves the unique features which gives our patent system its great strength while at the same time eliminating what are now recognized to be procedural burdens. But also it responds to the current desire that our patent system should be a compatible facility by which patents in other countries can be more easily acquired by United States inventors.

We firmly recommend that the Senate adopt and pass as legislation S. 2597 with its suggested amendments. This is the Bill which when passed will accomplish the most for our country.

INDUSTRIAL NUCLEONICS CORP.,
Columbus, Ohio, February 7, 1968.

HON. JOHN L. MCCLELLAN,
Chairman, Subcommittee on Patents, Trademarks, and Copyrights, Senate Judiciary Committee, U.S. Senate, Washington, D.C.

MY DEAR SENATOR MCCLELLAN: I take this opportunity to address your attention to an aspect of the patent legislation now pending in Congress. My comments are directed to the extension of the term of a patent for delays beyond an applicant's control, where the patent term is a fixed period from the filing date. It appears that delays beyond an applicant's control, caused by the needs of the Government should justify an extension. In particular, I urge that a delay caused by the Atomic Energy Commission or National Aeronautics and Space Agency review, as required by Act of Congress, should result in the extension of the patent life for a time corresponding to the delay.

Industrial Nucleonics Corporation owns over 160 U.S. patents and many foreign patents. I have been issued over 24 U.S. and foreign patents, and many patent applications are pending on my inventions. The experience gained from working with patent attorneys on my inventions has given me some detail information on the present Patent Office procedures. I have obtained information from our Patent Department files that may be helpful in describing a typical situation.

My concern is in an area over which little emotion has developed. Perhaps, other aspects of the bills have overshadowed the full examination of this point. More likely, there is a general lack of information on some aspects of the situation to be described below.

I ask that this letter be included as testimony for the record, in connection with the pending legislation. I would appreciate your comments on whether legislation will include an adequate solution.

The question is: should the patent term be extended beyond 21 years and, if so, on what basis. The Patent Office favors an extension when an application was under a secrecy order (see Patent Office letter to Senator Eastland on the Dirksen bill, S. 2597, under "Recommendation No. X1X: Secrecy Order"). Further the Patent Office states that an extension of the term should occur when the delay is caused "by the needs of the Government which was beyond the control of the applicant." The Patent Office urged that 154(c) of S-1042, the Administration's bill be adopted, to extend the term of the patent only when an application is under secrecy order.

Our company supports the Patent Office view, on the need for an extension for delays caused by the needs of the Government which are beyond the control of the applicant. However, the secrecy order is *not* the *only* situation that should be considered, in our opinion. While we support the general Patent Office statement on this point, the Administration's bill appears too limited.

Perhaps, consideration has not been given to other types of delays beyond the control of an applicant, caused by the needs of the Government.

Our technology includes the field of atomic energy and space. A significant number of our patent applications are subject to review by the AEC and NASA by Act of Congress. We must prepare affidavits as to the origin of the invention. Companies having this type of technology would be discriminated against in the life of their patents, if the term of a patent was based on a fixed period after filing.

It may be helpful to illustrate the typical situation by referring to one of our patent applications that has issued as a patent. We will attach copies of pertinent documents referred to. The series of events that took place were:

(1) The patent application was filed, examined, and determined to have patentable subject matter. We were notified on August 17, 1965 that the application would be allowed, subject to further procedures, as may be appropriate (copy of Patent Office letter attached).

(2) A letter was received from the Patent Office on August 24, 1965, that required a statement under the Atomic Energy Act (copy of document attached). The inventors were required to sign an affidavit setting forth the "full facts". Forty-five days was given to complete the affidavit. The basis for the requirement is found in the Atomic Energy Act, 42 U.S.C. 2182, commonly referred to as Section 152 of the Atomic Energy Act of 1954 (copy of Section 2182 attached).

(3) The inventors filed an affidavit (copy attached) on September 23, 1965 and, after some further correspondence, the affidavit was accepted.

(4) A Notice of Allowance (copy attached) was issued on the patent application on June 21, 1966, almost nine months after the AEC affidavit was filed. During this period, the Patent Office performed certain administrative functions unique to the review under the AEC statute, and the AEC reviewed the patent application before it could be approved for issuance as a patent.

(5) The application was issued as Patent No. 3,285,544 on November 15, 1966 (copy attached).

An application that was not reviewed under the AEC Act would have had the Notice of Allowance issue in approximately two to three months after an indication that the application was allowable (approximately in November 1965). Instead, the issuance of the patent was delayed almost nine months.

There are many other examples in our files. *We consider an eight month delay about average, from a survey we ran.* The worst situation is where we receive requirements for both AEC and NASA review on the same application. NASA has a similar provision in its Act. The pertinent legislation is 42 U.S.C. 2457, particularly sub-paragraph (c), copy attached.

It would seem to us that any requirement for review under either the NASA or AEC Act would be adequate reason for extending the life of a patent, if the period is a fixed duration from the filing date.

We certainly appreciate your interest in this question. We hope that our information has been of assistance in explaining the nature of the problem. We strongly urge that Congress adopt legislation that will not discriminate against our company's patents.

Sincerely yours,

H. ROY CHOPE,
Executive Vice-President.

MAUMEE CHEMICAL Co.,
Toledo, Ohio, February 28, 1968.

HON. JOHN L. McCLELLAN,

Chairman, Subcommittee on Patents, Trademarks, and Copyrights, Senate Committee on the Judiciary, Senate Office Building, Washington, D.C.

DEAR SENATOR McCLELLAN: Attached please find three copies of a statement directed principally to S. 2597, Section 100. The statement endeavors to explain a serious problem which our fundamental research program faces as a consequence of the Brenner v. Manson interpretation as "useful" by the United States Supreme Court, as subsequently extended by decisions of the Court of Customs and Patent Appeals.

We feel that the problem is of sufficient magnitude, not only to us, but to the chemical industry generally, and to the progress of useful chemical arts in the United States, that we shall be pleased to make every effort to supply any additional information that might be of assistance to the Sub-Committee, and in whatever form would be most useful, whether by personal explanation or by written statement.

An article by E. D. Compton beginning on page 30 of an enclosed copy of *Financial Executive* (February, 1968)* may be of interest to the Sub-Committee. Dr. Compton, our Chemical Research Director, explains some of the problems

*NOTE.—Article referred to, appearing in *Financial Executive* of February 1968 may be found in the files of the committee.

involved in planning research. The risk involved in chemical research is discussed on page 32 of the article. The importance of research to our projections of growth is graphically presented in Fig. 7 (page 36) of the article. The contemplated sales of New Products are the anticipated fruits of our heavy research investment. If the *Brenner v. Manson* problem is not solved, our growth projections become far less optimistic, and the restructuring mentioned in the statement becomes imperative.

Very truly yours,

GEORGE F. SCHLAUDECKER,
President.

STATEMENT OF GEORGE F. SCHLAUDECKER, PRESIDENT, MAUMEE CHEMICAL CO.,
TOLEDO, OHIO, PATENT REFORM LEGISLATION

SUMMARY

A statutory definition of the "useful" requirement for the grant of a patent is advocated. Such a definition as has been incorporated in S. 2597 is considered satisfactory. A statutory definition is required because a recent Supreme Court decision establishes such a strict interpretation of the requirement that the tendency will be to stifle important types of chemical research rather than to accomplish the Constitutional purpose of promoting the progress of useful arts.

In the absence of statutory relief, a drastic restructuring of the research operations of Maumee and other chemical companies will be necessary. The restructuring could involve discontinuing all efforts at chemical innovation, or it could involve discontinuing all efforts at chemical innovation, or it could involve drastically curtailing such efforts by rejecting all projects which are not compatible with secret exploitation.

STATEMENT

Maumee Development Company was incorporated in 1946 as an Ohio corporation with a small amount of capital, four active principals with chemical and chemical engineering background and experience, some ideas concerning chemical reactions by which saccharin could be produced, enthusiasm, and confidence in the American free enterprise system. By corporate change of name, the company became Maumee Chemical Company and, in 1966, was purchased by The Sherwin-Williams Company. After the necessary legal changes, including the incorporation of a new company as Maumee Chemical Company and transfer of assets to the new entity, Maumee Chemical Company continues to operate as, essentially, a small corporation, and with limited capital. Annual sales of Maumee Chemical Company are now approximately Five Million Dollars; a chemical which we call isoate anhydride, and which we produce by a patented method, is involved, either as the chemical sold, or as an intermediate, in a majority of our sales. Nevertheless, the company was not built upon patents as a foundation; rather, one of the goals toward which the company looked has been evolution of further innovations subject to patent protection to create new business.

Looking toward this goal, Maumee Chemical Company has invested heavily in research. In terms of percentage of gross sales, the investment has been large by comparison with the investments made by giants in the chemical field: over 20 percent of the company's employees are involved in research and development work. The investment has not been limited to product development work, but has also included what we call speculative and exploratory research,¹ looking toward the ultimate manufacture of chemicals which have previously been unknown, or which have previously been unavailable in commercial quantities. There is a great deal of risk involved in such research, particularly for an organization as small as Maumee Chemical Company: there may be no market for a new chemical or a chemical which is newly available in commercial quantities as a consequence of such research and, if there is a market, in the absence of the time-limited protection of patents prompt competition can be expected.

To date, our fundamental research program has been managed on the assumption that we could reasonably expect to obtain effective patent protection for significant developments of this research operation, and that the prospect of effective patent protection justified the substantial risk of funds necessary for fundamental research. It is no problem to obtain capital to commercialize successful fundamental research for which there is effective patent protection.

¹ Subsequently called "fundamental research."

In roughly the language of the Constitution, we were stimulated to conduct this type of research by the prospect of grants securing for limited times the exclusive right to our inventions; stated otherwise, the prospect of an effective patent position was the carrot which stimulated our speculative and exploratory research programs.

We have also recognized the possibility that information developed by fundamental research can be utilized as a trade secret, not disclosed and not patented, but have heretofore felt that the open, forthright, patent approach was usually preferable, not only from our corporate standpoint, but, also, from the standpoint of the country at large.

Certain recent developments indicate that we should seriously reappraise our entire fundamental research program and, if the program is continued, that we should seriously reappraise the manner of its conduct, including our contemplated reliance on the patent system in connection with our commercialization of significant developments. I refer to recent court decisions, one by the United States Supreme Court² and two by the Court of Customs and Patent Appeals³ interpreting the statutory requirements that a new chemical method or composition of matter must be useful,⁴ and that a patent application must disclose how to use the invention or discovery.⁵ We are informed by patent counsel that the Supreme Court decision probably can be interpreted as meaning that, in a field where predictability on the basis of chemical structure is not the rule, establishing that a given compound has a certain utility fails to establish that an adjacent homolog of that compound has the same utility; in many respects, an adjacent homolog is about as close and similar, chemically, as it is possible for any compound to be relative to a different compound. We are also informed by patent counsel that, if predictability on the basis of chemical structure is the rule, the chances for patent protection are slim because the invention or discovery will not meet the further statutory requirement for the grant of a patent of unobviousness.⁶

What these decisions mean to our speculative and exploratory research program can best be explained by reference to a current program. Our chemists have presently synthesized representative members of five closely related families of compounds. Since we, like most other companies of comparable size, have no facilities for investigating special activities of compounds which we synthesize, we have entered into what we call screening agreements with various companies; according to the terms of these agreements we propose that compounds which we have synthesized be "screened" by our various partners for pharmacological activity, for herbicidal activity, as plant growth regulators, as corrosion inhibitors, as bactericides or bacteriostats, as fungicides or fungistats, and the like. If a screening partner accepts a compound we have proposed, he subjects that compound, after it has been supplied by us, to a preliminary evaluation for activity in the area in question. If a predetermined order of activity is detected by the preliminary evaluation, further and more refined testing is undertaken. The ultimate goal is to find a chemical which solves a problem in, for example, one of the indicated areas, for which problem there is presently no solution, or to find a chemical which provides a better solution for such a problem than is presently available. Only if this goal is achieved does Maumee Chemical Company or the one of its screening partners which is involved have an opportunity to recover the investment in speculative and exploratory research.

Referring again to the five closely related families of compounds, from the chemical viewpoint, the work already completed by our chemists makes possible the synthesis, at a comparatively low cost when there is a reasonable demand, of hundreds of thousands, perhaps millions, of members of each of the five families. Only a handful of compounds of the type in question have, up to the present time, even been disclosed in the technical literature. So far as actual syntheses are concerned, we have prepared 59 compounds which are members of these families of compounds or intermediates for the preparation thereof. More than 90 percent of these 59 compounds have not been reported in the literature. Our experimental work has also involved unsuccessful attempts to produce thirty additional related compounds. These syntheses and attempted

² *Brenner v. Manson*, 148 USPQ 689, 383 U.S. 519.

³ *In re Joly and Warrant*, 153 USPQ 45 (376 F. 2d 906) and *In re Kirk and Petrow*, 153 USPQ 48 (376 F. 2d 936).

⁴ 35 U.S.C. 101.

⁵ 35 U.S.C. 112.

⁶ 35 U.S.C. 103.

syntheses have involved in excess of 8600 man-hours of the time of our laboratory staff, not including time at the level of Research Director and higher. Exchanged information indicates that our screening partner has a heavier investment in the program than we have; the partner involved estimates an average investment of Three Million Dollars to "bring in" a new product in his field and an elapsed time of 6 to 7 years; this means that we have four or more years to go on the present project before we can reasonably hope even to begin making sales. We have incurred substantial patent expense on this project, but the first application is yet to be filed. For a company the size of Maunee Chemical, the expenditure for fundamental research on this project alone has been heavy. To date, we have learned that representative members of one of the five families of compounds have an extremely high order of selective biological activity. Representative members of another family have a high order of desired biological activity, by comparison with previously known similar compounds, but a significantly lower order of activity than members of the first family. Members of the other three families which have been tested to date have been found to have comparatively slight or no desired biological activity; the field of commercial importance for compounds of these last three families is yet to be established, and will require further risk of funds.

Members of all five of the families of compounds are presently being screened for activity in other areas. To date, however, positive results have not been achieved.

We are informed by patent counsel that, on the basis of presently available information, in view of the Supreme Court interpretation of the "useful" requirement, it is doubtful that effective patent protection can be obtained for the three families of compounds which have been found to show little or no selective biological activity. Of even more impact on our fundamental research program, we are informed by patent counsel that the Supreme Court interpretation⁷ of the "useful" requirement for the granting of a patent makes it doubtful that effective patent protection can be obtained for more than the 15 to 20 highly active members of the family of biologically active chemicals which have actually been synthesized and screened. On the basis of knowledge which we have presently accumulated in this area, we would estimate that there are hundreds of thousands of compounds of this particular family which would exhibit an extremely high order of desirable biological activity. Since the synthesis of each new compound requires a substantial amount of laboratory time, it is an obvious impossibility to synthesize, and then to evaluate for specific biological activity, every compound which we believe can reasonably be expected to have a high order of desired activity. The chances that we have presently found the most valuable member of this family, considering both ultimate cost and order of desired activity, or the most valuable type of selectivity, are extremely slim. In this connection, it is worthy of note that, in September, 1967, one of the Ph.D. staff members of our screening partner predicted that one of three specific members of the family in question would ultimately prove to be the most valuable. By February, 1968, a fourth member of the family, different from each of the three which had previously been selected by the Ph.D. in that a substituent was of a new kind⁸ was also a prime candidate, and the nature of the activity of the fourth compound made it extremely likely that there are numerous other prime candidates. We are advised by patent counsel that, under the strict Supreme Court interpretation⁷ of the "useful" requirement for patentability, on the basis of information which had been accumulated in September, 1967, we would not have been entitled to claim the compound which, in February, 1968, is the fourth prime candidate from the family in question; the fourth candidate is sufficiently different chemically from all of the compounds which had been synthesized and screened in September, 1967, being far more remote than adjacent homologs, that the proof of utility available in September, 1967, would not establish utility for the fourth candidate.

There is no question but that the strict Supreme Court interpretation⁷ of the "useful" requirement for patentability significantly increases the risk involved in fundamental chemical research of the type this statement endeavors to explain.

⁷ *Brenner v. Manson*, supra.

⁸ This means that the fourth compound differed from the previous three by drastically more than adjacent homologs differ from one another.

and significantly decreases the prospect that a patent will be granted⁹ on an invention made as a part of a fundamental research program to provide its owner the basis on which the original investment and a reasonable return can be realized. Under the strict Supreme Court interpretation⁷ of the "useful" requirement for patentability, therefore, the tendency is to stifle, rather than to promote, the progress of useful arts as represented by fundamental chemical research; the tendency is to discourage this type of research altogether, or to encourage attempts to exploit the fruits thereof as trade secrets.

It is encouraging to note that the problems caused by the strict Supreme Court interpretation⁷ have not gone unnoticed; in a dissent,¹⁰ Judge Rich of the Court of Customs and Patent Appeals urged

"If this¹¹ cannot be brought to pass by court decisions, then the problem should be submitted to Congress. An effective statute which would restore the law to what it was for a century and a half would merely have to provide: (a) that new and unobvious chemical compounds are per se useful within the meaning of 35 USC 101 and (b) that it shall be conclusively presumed that chemists will know how to use them within the meaning of 35 USC 112."

We are advised by patent counsel that, so far as is known, no legislation incorporating a statutory definition as liberal as that urged by Judge Rich has been introduced, but that what may be considered a compromise between the proposal of Judge Rich and the strict Supreme Court interpretation⁷ is pending in S. 2597, in a Section 100 definition of "useful".¹² It is the view of Maumee Chemical Company that the Section 100 definition of "useful", S. 2597, would restore the incentive for fundamental chemical research which we used to believe was provided by the patent statutes: the members of the family of highly active compounds which can be synthesized by the chemistry that has been developed, but which have not yet been made and tested would, it is believed, be obviously useful in research because of their chemical similarity to highly active compounds. Maumee Chemical Company would be able to satisfy the "useful" requirement of the statute to justify the grant of a patent relative to a claim sufficiently broad to cover members of the highly active family more remote than "adjacent homologs" from specific compounds for which the high order of biological activity has presently been demonstrated. This we feel to be essential in order that the requisite incentive be provided, because of the great likelihood that the commercially important compounds, or some commercially important compounds, have not presently been synthesized and tested. It would be remarkable, indeed, if the 15 to 20 highly active compounds which have presently been made and tested would include the commercially important compounds, or all of the commercially important compounds. A patent which covers less merely invites competition from those who have not made the investment in fundamental research, and constitutes no real incentive for the heavy expense involved in such research.

The introduction of S. 2597, with relief from the strict Supreme Court interpretation⁷ of the "useful" requirement for the grant of a patent is gratifying. However, it is not gratifying to learn¹³ that the Department of Commerce opposes the liberalized definition of "useful" incorporated in S. 2597, Section 100. Neither is it encouraging to note¹⁴ that the position of the Department of Commerce in opposition to the proposed definition of useful, S. 2597, Section 100, has the full support of the Department of Justice and of the Office of Science and Technology. Patent Counsel has suggested that, if the proposed definition of useful in S. 2597, Section 100, is considered too liberal, the incentive contemplated by the Constitution could be restored, to an appreciable extent, even if the

⁹ Patent counsel believes that we are entitled to at least one patent on the development considered herein, even under *Brenner v. Manson*, but questions the effectiveness of the protection to which we are entitled under that decision.

¹⁰ *In re Kirk and Petrov*, 153 USPQ 266, at p. 275.

¹¹ Reestablishment of the rule that chemical compounds are per se "useful."

¹² Sec. 100 of the pending bill states: "The term 'useful' shall include, but shall not be limited to, utility in agriculture, commerce, industry, health, or research."

¹³ Jan. 24, 1968, letter, General Counsel of the Department of Commerce to the Honorable James O. Eastland, chairman, pp. 26 and 27.

¹⁴ Statement of the Honorable Edward J. Brenner, Commissioner of Patents, before the Subcommittee of Patents, Trademarks, and Copyrights of the Senate Judiciary Committee, Jan. 30, 1968.

"useful in research" portion of the definition were limited¹⁵ to research involving an investigation of the parameters of an invention which, relative to at least one specific embodiment, had otherwise been shown to be useful. For example, referring to the family of compounds discussed above, utility has presently been demonstrated for the compounds which have been synthesized and tested. Under the suggested restriction of the S. 2597, Section 100, definition, other members of this family would be useful in research involving an investigation of their effectiveness because such research would involve an investigation of the parameters of the invention, or of the influence, in the case in question, on biological activity of changes, for example in the nature, size, position and number of substituents in the molecule.

We respectfully urge the favorable reporting to the Senate of legislation including a statutory definition of "useful" which will enable the United States patent system to provide the incentive necessary to stimulate fundamental chemical research. From our standpoint, we believe that enactment of any one of the statutory definitions¹⁶ of "useful" considered herein would be a significant step toward restoring the incentive contemplated by the Constitution, and necessary to stimulate fundamental chemical research.

AKRON, OHIO, January 19, 1968.

Re clarification of the utility requirement in the patent statute.

HON. JOHN L. McCLELLAN,

Chairman, Subcommittee on Patents, Trademarks, and Copyrights, Senate Judiciary Committee, U.S. Senate, Washington, D.C.

DEAR SENATOR McCLELLAN: The bills now before the Congress offer an opportunity for correcting a serious misinterpretation of the present statute with respect to "utility" of the invention of a patent.

The Patent Office has taken advantage of simplification of language in the codified Patent Act of July 19, 1952 (the present U.S. Code, Title 35) to impose a completely unintended requirement for a disclosure of "utility" of chemical inventions (*Brenner v. Manson* 383 U.S. 519).

The patent bar is suggesting a correction by addition of another definition to Section 109, to say:

"The term 'useful' shall include but not be limited to utility in agriculture, commerce, industry, or research."

This should be helpful but might not eliminate the problem, since the word "use" or various derived words appear in different sections of the statute, to which this definition is not necessarily applicable.

It has not been generally recognized that the problem would never have occurred had not a few important words been thoughtlessly omitted in the codification, as is explained in the article in the Journal of the Patent Office Society, July 1967, pages 533 to 546, of which a copy is enclosed for the use of your committee. These omissions have resulted in confusion of the words "use" and "useful" in different senses in various unrelated sections of the statute. This confusion can probably not be completely eliminated without a revision of Section 112 as suggested in the article.

It is requested that this material be included in the record of the hearings on the bills for revision of the patent statutes.

Very truly yours,

HAROLD S. MEYER.

UTILITY REQUIREMENT IN THE STATUTE

(By Harold S. Meyer*)

Recent decisions concerning the statutory requirement that an invention be "useful" have expressed such extremely divergent views, concerning the meaning of the statute and the kind of description which an applicant for patent must submit, as to suggest that a statutory clarification should be attempted. Before

¹⁵ The following language has been suggested: The term "useful" shall include, but shall not be limited to, utility in agriculture, commerce, industry or health, or in research involving an investigation of the parameters of an invention one specific embodiment of which has otherwise been shown to be useful, where the parameters of an invention are the limits on the variable or variables involved.

¹⁶ I.e., the definition: (1) suggested by Judge Rich in his dissent, *In re Kirk and Petrov*, *supra*; (2) of S. 2597, sec. 100; or (3) suggested in the preceding footnote herein.

*Member of the Bar, State of Ohio.

this is done, the history of the requirement should be examined to ascertain how it originated, and the preferred policy of the law should be ascertained. Then and then only will it be possible to frame a statutory statement which will be satisfactory to owners and users of inventions, and will be understood and properly applied by the Patent Office and the Courts.

It is submitted that the statute has required and should still require only that inventions be operative in fact for some beneficial purpose, and that a beneficial purpose be disclosed in the patent when it is issued, as will be explained in detail below. Specific statutory language to clarify the law in these respects is proposed.

The recent decisions on utility of patented inventions, which culminated in the Supreme Court decision in *Brenner v. Manson* 383 U.S. 519, 148 USPQ 689 (March 21, 1966), do not distinguish clearly among the three or more reasons for inquiring into utility. Indeed, the Supreme Court relied solely on 35 U.S.C. 101 as the statutory basis for its decision, whereas the Court of Appeals of the District of Columbia in *Petrocarbon v. Watson* 247 F.2d 800, 114 USPQ 94, whose decision contrary to that of the Court of Customs and Patent Appeals in the Manson case was a reason for requesting certiorari, relied solely on 35 U.S.C. 112, and the Patent Office relied on both sections.

The three reasons given for inquiring into utility include the requirement that the invention be "new and useful", the requirement for a complete description of the invention, and the courtmade law as to requirements for completion or reduction to practice of an invention. There is no particularly close relation of these requirements other than that each involves to some extent, and in some meaning or other, some form or derivative of the common word "use".

The first reason for considering utility arises from the statutory language in 35 U.S.C. 101 requiring the invention to be "new and useful" (previously the requirement was in R.S. 4886 containing exactly the same phrase from 1874 to 1952, as well as in the previous statutes of 1836 and 1793, and in slightly different language in the first patent act of 1790). The word "useful" in this context has always previously been considered to mean nothing more than operative in fact for some useful purpose.

It is remarkable that the Supreme Court was not able to cite any previous decision requiring any particular degree of usefulness, other than decisions on appeals from the Patent Office gratuitously attempting to impose such requirements within the past 20 years; namely the decision of the CCPA, *In re Brenner et al.* 37 CCPA (Patents) 1032, 182 F.2d 216, 86 USPQ 74 (1950) and subsequent decisions.

The second reason arises from the statutory language in 35 U.S.C. 112 requiring "a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same" (previously the requirement was in R.S. 4888 specifying that the description include "the manner and process of making, constructing, compounding, and using it" as stated in the 1870 act, based in turn on the 1836 act specifying these acts in a different order twice in the same sentence: "the manner and process of making, constructing, using and compounding the same" and "to make, construct, compound, and use the same"). This requirement for a complete disclosure is the "*quid pro quo*" for the grant of the right to exclude. Until the recodification in 1952, the four statutory classes of inventions were recognized by special words in this part of the statute—the disclosure of a machine was to include the manner of "constructing" it, a manufacture the "making", an art the "using", and a composition the "compounding".

The third reason arises from one of the statutory defenses in infringement suits, in 35 U.S.C. 102(g) that "the invention was made in this country by another" and "In determining priority of invention there shall be considered * * * the reasonable diligence of one who was first to conceive and last to reduce to practice" (previously the defense was in R.S. 4920 "Second. That he had surreptitiously or unjustly obtained the patent for that which was in fact invented by another, who was using reasonable diligence in adapting and perfecting the same" and in similar language in the 1836 act). The courts have construed the requirement for "diligence in adapting and perfecting" along with other statutory provisions and philosophical principles as meaning that an invention is not completed until it is conceived and reduced to practice and that reduction to practice includes a successful test unless operativeness is obvious. The test is of usefulness in the sense of operativeness (*Sydemun v. Thoma* 32 App. D.C. 362, 1909 C.D. 340, and cases there cited, as well as *Automatic Weighing Machine Co. v. Pneumatic*

Scale Corp. 166 F. 288, 1909 C.D. 498 (CA-1, 1909) pointing out that proof of priority may require evidence of tests to establish "diligence in adapting and perfecting" but that tests of utility are not a requirement for patentability, as long as the invention as described is operative in fact).

The CCPA itself in the *Bremner* decision cited no previous decision interpreting the statutes in the same way. After a reference to the constitution and R.S. 4886 and 4888 without quotation of any specific requirement, four decisions were cited, also without quotation or discussion. They are:

Potter v. Tone 1911 C.D. 295, 36 App. D.C. 181. This was a priority contest in an interference proceeding. The very brief decision of the court included the following:

"Without undertaking to determine whether the discovery of a new chemical compound without a further discovery of useful properties, is sufficient as a reduction to practice, because it is not necessary under the facts of this case, we concur in the following expression of the opinion of the Examiners-in-Chief, which was quoted and approved by the Commissioner:

* * * * *

To hold that it must be shown to be capable of use in some commercial process and that process must have been successfully practiced would seem to amount to holding that the inventor must make a second invention which might be the subject of another patent, and reduce that to practice before he could claim a reduction to practice of the original invention. The issues in this interference do not cover the use of the material in question for any specific purpose but the production of a novel material of described characteristics * * * *

Such apparent usefulness of the newly-discovered compound being shown, nothing more was requisite. If additional uses may hereafter be discovered, rendering it of additional value commercially, *Tone* will be entitled to their benefit."

Scovill Mfg. Co. v. Satter 21 F.2d 630 (D.C. Conn. 1927). A patent on a stepped variable condenser was held valid and infringed, with the explanation:

"Utility * * * When this defense is relied upon, the evidence must show a total incapacity of the invention to do anything claimed for it. * * *"

Smokador v. Tubular Prods. 31 F.2d 255 (C.A. 2, 1929). A patent on an ash-stand was held valid and infringed. The statutory requirement that the invention be useful was demonstrated by the copying of it by the infringer.

In re Holmes 20 C.C.P.A. (Patents) 899, 63 F.2d 642, 16 USPQ 399. The issue was patentability of welded pipe with seams in a particular location, process claims having been allowed. The opinion stated:

"The fact is that the pipe so constructed may be useful, but there may be no utility in the particular form of the structure which appellant claims in invention."

This thoroughly confusing remark, that the same thing may be useful yet have no utility, is actually an attempt to state that there was no showing of any unexpected advantage of the product sufficient to justify grant of product claims—in other words, no patentably new product had been invented, but only a new process.

None of these previous decisions had anything to do with the question presented in *Bremner*, whether the description in a patent must include an assertion of utility. The *Potter* case involved adequacy of evidence to prove reduction to practice. The *Scovill* and *Smokador* cases involved operativeness. The *Holmes* case involved degree of difference from prior publications. Yet the court in *Bremner* answered the question in the affirmative, establishing a complete turnaround in interpretation of the patent statutes, on the sole basis that:

"* * * we feel certain that *the law requires that there be in the application an assertion of utility and an indication of the use or uses intended.*" (emphasis in original)

When the Patent Office, thus encouraged, began to reject applications for patent on this novel ground on a large scale, a majority of the CCPA refused to affirm such rejections except in the clearest cases of complete absence of any disclosure of utility. See *In re Nelson* 47 CCPA 1031, 280 F.2d 172, 126 USPQ 242. The Patent Office then took one of these cases, *In re Manson* 52 CCPA 739, 333 F.2d 239, 142 USPQ 35, to the Supreme Court where it was reversed.

Mr. Justice Fortas, speaking for the majority of the Supreme Court, said that the *Bremner* decision was not "new doctrine in the court" citing *Thomas v. Michael* 77 USPQ 216 (1948), apparently without noting that the issue there was an entirely different one of the quantum of evidence required to prove pri-

ority of invention (as in *Potter v. Tunc* above) and not patentability in any sense, and also that the CCPA in that case decided that no evidence as to utility of the product of the claimed process was required, so that *Thomas v. Michael* instead of supporting the conclusion of the majority of the Supreme Court is either irrelevant or contrary thereto. The Supreme Court was able to find no other authority for its ruling than *Bremner* and other subsequent CCPA decisions.

All authorities, both courts and authors of texts, before 1950 regarded "new and useful" to require operativeness but not any special level of utility, and certainly not utility or operativeness of anything other than the subject matter claimed. See the authorities quoted in the Nelson opinion.

Thus we see that before *Bremner* "new and useful" in section 101 and its predecessors meant no more than operative in fact, that the requirement for a complete description in section 112 and its predecessors meant no more than a description informing the skilled worker how to practice the invention claimed, and that the further requirement for practical tests under section 102(g) and its predecessors applies only when evidence is presented of the date of an actual reduction to practice earlier than the filing of an application for patent and then only to extent required to establish operativeness in fact. Of the reasons cited as justification for a stringent requirement for a showing of utility, the first and last require only that the invention be operative in fact, which does not necessarily require any particular kind of disclosure in the application for patent but can be proven by extrinsic evidence if ever questioned. Even the requirement for a full disclosure of how to practice the invention must have some reasonable kind of limitation to the invention actually claimed.

The present position of the Patent Office is expressed in part by its *Manual of Patent Examining Procedure* stating in § 608.01(q) :

"A complete disclosure should include a statement of utility. This usually presents no problem in mechanical cases. In chemical cases varying degrees of specificity are required."

This is completely without basis in the statute. It confesses that the Patent Office has no fixed standard and applies whatever test it chooses in each case. This is borne out by the views of practitioners, summarized in the *amicus curiae* brief for Am. Pat. Law Assn. in the Nelson case :

"Rejections for 'lack of utility' now engage much of the time of the Patent Office and practitioners in the chemical field whereas, until about five years ago, practically no time was spent by either of these groups on utility-disclosure questions. In this new scrutiny of utility to judge its sufficiency, degrees or levels of utility are being distinguished to differentiate what is 'practical' from what is not, and applications not meeting a criterion for 'practical' utility established by the Patent Office are being rejected.

"The rejections are based not only on alleged failure to describe exactly what 'practical' or end use a new chemical compound has, but also on lack of disclosure of a specific embodiment of such end use."

This attitude is carried to an extreme in cases involving medical inventions. In one such case, *Isenstein v. Watson*, 115 USPQ 408, the District Court of the District of Columbia was persuaded that :

"* * * it is right and proper that the Patent Office should be very careful and perhaps even reluctant to grant a patent on a new medical formula until it has been thoroughly tested and successfully tried by more than one physician."

The foregoing case was tried *in camera*, and when a similar case was taken to the CCPA, involving a claim for a new chemical compound, not asserted to be useful in treating human beings, but having various pharmaceutical properties, including anti-bacterial action, and anti-inflammatory action proven by tests on animals, the court pointed out in *In re Krimmel* 130 USPQ 215, 220 (1961) :

"Although we have no doubt that the Patent Office has, in the case at bar, acted in good faith and with proper motives, the fact remains that the Patent Office has not been charged by Congress with the task of protecting the public against possible misuse of chemical patents. There is nothing in the patent statute or any other statutes called to our attention which gives the Patent Office the right or the duty to require an applicant to prove that compounds or other materials which he is claiming, and which he has stated are useful for 'pharmaceutical applications,' are safe, effective, and reliable for use with humans. It is not for us or the Patent Office to legislate and if the Congress desires to give this responsibility to the Patent Office, it should do so by statute.

"We now hold only that appellant has established that his compounds have statutory utility even though he has not proven that they have the ultimate

utility—prevention, alleviation, or cure of a disease in the human body. In this instance, appellant has proven sufficient utility to satisfy the requirement of 35 U.S.C. 101."

This brings us to the basic question of the policy of the law. The Constitution clearly favors grant of temporary rights to exclude, as a means of promoting progress in the sense of providing a powerful incentive for progress. The Congress has enacted a succession of acts, all containing a simple requirement that an invention on which a patent is granted be "new and useful", and this has been interpreted for a century and a half as requiring new in the sense of significant novelty beyond the skill of a mechanic, and useful in the sense of simple operativeness. Why should there suddenly be a reversal of policy, requiring an undefined level of utility way beyond mere operativeness?

Every student of invention knows that the truly revolutionary inventions of greatest social importance first make their appearance in a crude form, of little or no immediate value. As a single illustration, Bell's telephone was characterized by contemporaneous authorities as a mere toy of no practical value whatever. It required much improvement by others before it became a practical success (*The Telephone Cases* 126 U.S. 1, 535) yet the Bell patent was sustained, because Bell had described something which was operative in fact, and that was and is all that the law requires.

The majority of the Supreme Court (in *Brenner v. Manson*) attempted to justify their decision by stating that grant of a patent absent a showing of specific utility could "block off whole areas of scientific development, without compensating benefit to the public" and would deprive the public of some of the disclosure which is the *quid pro quo* for the patentee's right to exclude others. The dissenters, Justices Harlan and Douglas, point out that these arguments operate against all patents and that the public interest justifies patents even though improvements by others may increase the reward of the patentee.

The most recent decisions, *In re Joly et al.*, *In re Kirk et al.* 153 USPQ 45-57, 243-283, and *In re Schmidt et al.* 153 USPQ 640-646, represent a swing toward a far-reaching requirement of utility—not just utility of the invention claimed, but a showing of utility of unclaimed products and even of remote resultants, and with no restrictions on the level of utility and character of proof which the Patent Office might choose to require.

Can this really have been intended by the Congress? The history of the statutes does not point in that direction at all!

The majority of the Supreme Court in *Brenner v. Manson* referred to only one phrase in one section of the statute, the phrase "new and useful" in 35 U.S.C. 101, and commented on the difficulty of interpreting it, while ignoring the uniform interpretation for over a century before 1950. The Supreme Court also ignored the change in a companion section, R.S. 4893, which had its basis in the 1836 act. That section required that if the invention is sufficiently useful and important, the commissioner shall issue a patent therefor." This was not mentioned by the CCPA in *Brenner* (only R.S. 4886 and 4888 were mentioned) although it was in force when that decision was made. Moreover, the CCPA failed to indicate what portion of R.S. 4888 was relied on, or why.

Significant differences exist between the Revised Statutes and the Code sections 101, 112 and 131, and have seemingly been overlooked in the controversies about the supposed requirement for a disclosure of utility.

R.S. 4886 stated the basic rule: "Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter * * * not known or used by others [etc.] * * * may, upon * * * due proceeding had, obtain a patent therefor." In the present Code, the positive provisions, including the "new and useful" phrase, are in 35 U.S.C. 101, and the negative patent-defeating conditions are in a separate section 102, with the new test that the invention not be "obvious" in section 103.

R.S. 4888 required a written description "of the manner and process of making, constructing, compounding, and using it". In the Code, this was abbreviated to "the manner and process of making and using it" in section 112, apparently without any intention of doing more than to make a few words serve the place of many.

Federico in his Commentary says "This language is the same as in the old statute with only some slight reduction in wording." 35 U.S.C.A. 25. Unfortunately, the Patent Office now seems to be staffed with people who either do not know, or have forgotten, that four different verbs were used until 1952 to refer to the requirements for description of the four statutory classes of invention.

Moreover, it should be noted that the original patent act of 1790 used the disjunctive, requiring that the description permit the workman "to make, construct or use the same", as also did the act of 1793 which continued in force until 1836 specifying "a written description of his invention, and of the manner of using or process of compounding the same" to permit any person "to make, compound, and use the same". The complete change from "or" to "and" occurred in 1836, but seemed to cause no problem in interpretation since it was obvious that the four verbs could not all apply to each class of invention—one cannot make or construct or compound a process, or construct a composition, or compound a machine or manufacture. The same was true in the 1870 revision which became R.S. 4888. Under R.S. 4888 there was no requirement that the description tell how to "use" a composition but only how to "compound" it.

R.S. 4893 contained the requirement "that the same is sufficiently useful and important", which was completely omitted in the generally corresponding section 35 U.S.C. 131. Again there seems to have been no purpose other than to eliminate words having no operative significance. The Senate report on this change says, "The phrase 'and that the invention is sufficiently useful and important' is omitted as unnecessary, the requirements for patentability being stated in sections 101, 102 and 103." U.S. Code Congressional and Administrative News, 82nd Congress, Second Session, 1952, p. 2413. Nevertheless, if a legislative purpose were to be sought, it could be said that this change evidences a legislative policy to eliminate or avoid any stringent requirement for a showing of usefulness, as was specifically stated by the CCPA, without dissent on this point, in *In re Ratti* 123 USPQ 349, 353 (1959).

It is the future rather than the past that is important and the foregoing historical review is presented for two main purposes: to help determine what the policy of the law should be, and to suggest the way to establish that policy.

The recent decisions do not offer much hope of arriving through judicial action at a satisfactory and workable interpretation of the law which will preserve the incentive to progress. Corrective legislation should therefore be sought.

Such legislation should avoid the mistakes made in the 1952 codification, of omitting words whose omission fostered misinterpretation, and of adding provisions without careful correlation with the remainder of the statute. Avoidance of such mistakes cannot be assured unless many people review and criticize legislative proposals, and it is to be hoped that all unintended consequences of the following proposals will be discovered.

The first proposal resembles one already suggested by others. It is to add another definition to 35 U.S.C. 100:

"The term 'useful' shall include but not be limited to utility in agriculture, commerce, industry, or research, and an invention shall be considered useful if it can in fact be applied to a beneficial purpose."

It has been proposed also to add the statement "a new chemical compound shall be considered useful per se", but that seems to be an undesirable discrimination between chemical compounds and other classes of invention. The purpose can be accomplished well enough by explanations accompanying the proposed change. The important point is that "useful" means operative and is a question of fact and not of disclosure.

The other proposed change is to restore the principle existing before the 1952 codification, but in an even more explicit form, that the primary function of the specification is to describe the invention actually claimed. To eliminate the kind of confusion which has resulted from appearance of "useful" in section 101 together with the verb "to use" in section 112, it is proposed to avoid altogether the word "use", which has another legitimate function in relation to certain prior art in section 102 (a) and (b). This change involves a revision of the first paragraph of section 112 along the following lines:

"§ 112. *Specification* (revision of first paragraph)

The specification shall contain a written description of the invention, and of the manner of practicing it if a process, or the manner of constructing and operating it if a machine, or the manner of making it if a manufacture, or the manner of compounding it if a composition of matter, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice, or construct and operate, or make, or compound the same, and shall set forth the best mode contemplated by the applicant of carrying out the invention. The specification shall also state or be amended to state the purpose or purposes for which the applicant contemplates applying the invention."

The words used in the first sentence are chosen with care to avoid ambiguity. Thus "practice" is selected as the verb for a process since it is defined as meaning to make use of, do, or perform, without any apparently troublesome or confusing other meaning. "Compound" is selected as the verb for a composition since it also has no apparently confusing meanings and appeared in previous acts and decisions for over a hundred years. The phrase "carrying out" is used with reference to the best mode since it means to put into execution or bring to a successful issue, without any significantly different meaning.

Since it is important that a patent inform the public what the purpose of an invention is, a sentence has been added requiring a statement of purpose. Some patents presently in force are faulty in this respect and leave the reader completely in the dark as to what the purpose of the invention is. This kind of deficiency really does deprive the public of its *quid pro quo*, and may be one of the underlying reasons for the Patent Office position that every application for patent should contain a clear statement of utility.

There is no strong reason why absence of a clear statement of purpose should not be corrected at any time before grant of the patent. The decisions holding that supply of such information would be prohibited "new matter", such as *ex parte Scudi et al.* 123 USPQ 504 (Bd. of Ap. 1959) and *in re Nelson et al.*, *supra*, are based on a literal reading of the words of the statute 25 U.S.C. 132. The decisions do not determine that there is a need to extend the prohibition against new matter beyond the invention claimed, where it is important to prohibit new matter, to include such peripheral matters as purposes to which the invention can be applied, some of which may indeed not occur to any one until long after the original invention was made.

Positive permission in the statute for addition of a statement of a purpose for which the invention can be applied would avoid the waste of time and effort in wrangling about whether amplification of a statement of utility is justified by the description as filed or by prior publications.

Here again, avoidance of any form of the word "use", which has so many different meanings, appears desirable. The word "applying" was selected since it means to put to use for a practical purpose or to put into effect.

It is to be hoped that some such clarification of the meaning of "useful" in section 101, and of the kind of description which should be supplied in the patent under section 112, will permit the Patent Office and the Courts to concentrate on the far more important issues of extent of novelty and unobviousness rather than on this minor issue based largely on the skill of the drafter of the specification rather than on the merit of the invention.

NATIONAL CANNERS ASSOCIATION,
Washington, D.C., February 14, 1968.

Re statement in support of proposed amendment 511 to S. 1042 (Patent Reform Bill) expanding the existing statute on plant patents to include sexually reproduced plants.

Hon. JOHN L. MCCLELLAN,
U.S. Senate,
Washington, D.C.

DEAR SENATOR MCCLELLAN: This statement is submitted by the National Canners Association on behalf of its members in support of the American Seed Trade Association position for the adoption of the proposed amendment 511 to S. 1042 (Patent Reform Bill) expanding the present plant patent statute to include sexually as well as asexually reproduced plants. The National Canners Association is a nonprofit trade association whose almost 600 members have canning plants in 44 states and pack approximately 85% of the national production of canned fruits, juices, vegetables, specialties and meat.

At our recent Convention the Board of Directors of the National Canners Association unanimously adopted the following resolution:

RESOLVED THAT the National Canners Association support the American Seed Trade Association's official position of seeking voluntary protection of breeders' rights through broadening of the Federal Plant Patent Act through amendment thereof.

The vegetable canning industry relies on the seed industry for its most basic and vital ingredient, and therefore has an intimate concern for the economic welfare of that industry. We favor legal protection through the patent system

because it provides for voluntary participation. It will enable commercial seedsmen to recover the very substantial investments made over extended periods of time required for the creation of new and unique plant varieties. This protection will encourage the private investment, the expansion of facilities, and the professional manpower required to create the many new types of plants that are continuously needed by our industry. In our view, their capability to serve the American vegetable grower and processor, and ultimately the public, will be enhanced.

The vegetable grower, by necessity, has been forced to employ machines to harvest his crops. This need has come about, and is being met, in the present decade. Rapid advancements in mechanical harvesting and handling, however, have imposed certain restrictions in production on the grower and processor. Most machines are designed to make a single destructive harvest, but the varieties available in several crops were created for multiple harvest by hand and do not yield heavily at any one time. Under the circumstances, the seed industry is doing its best to create new varieties better adapted to machine harvesting. Unfortunately, we need a wide spectrum of new creations and greater effort devoted to vegetable improvement than the seed industry is willing or able to provide. Without legal protection for new varieties and recovery of research and development costs, commercial breeders obviously cannot justify expansion to the point where they can meet our rapidly changing needs for new varieties. This is just one current example of a requirement the vegetable growers and processors impose on the seedsmen. New varieties with resistance to disease, insects, nematodes, with high yield potentials, better quality, higher vitamin content, and numerous other attributes are also needed and can be developed for the mutual benefit of farmer, processor, and consumer. Additional valid requirements are expected to arise as agriculture and plant breeding become even more sophisticated.

Furthermore, it is our contention that the voluntary aspect of legal protection for sexually reproduced plants provided through the patent system will not only increase the number of creations available, but will greatly speed up their release to our industry for evaluation and decisions on usefulness. The right to determine the value and usefulness of any new creation belongs, in our judgment, with the user (the grower and processor). There should be no disinterested third party making arbitrary judgments for the user. Except for the patent system all of the schemes of legal protection for new plant varieties of which we are aware tend to follow, or are modifications of, the restrictive and non-creative federally controlled systems employed in Europe.

We know that technical problems may exist in determining novelty, and perhaps in enforcement but they are by no means insurmountable. We believe that the seed industry, whose professional breeders are all university trained (many are former professors), possesses an intimate knowledge of the technical problems that may be involved, and is quite competent to handle them. It should be the requirement of the company or person seeking a patent on a new sexually reproduced plant variety to establish the novelty of the variety to the satisfaction of the patent examiner.

We sincerely appreciate your concern and consideration in this matter and if there is further need for information please call on us.

Respectfully submitted,

MILAN D. SMITH.

THE NATIONAL CASH REGISTER Co.,

Dayton, Ohio, January 31, 1968.

Senator JOHN J. McCLELLAN,
U.S. Senate, Washington, D.C.

DEAR SENATOR McCLELLAN: The enclosed proposal is being submitted to you in the hope that it offers an equitable resolution of interference and grace period problems under the Patent Laws.

Yours very truly,

GLENN W. BONES.

The following constitutes a "package" proposal for the reform of interference practice and other aspects of the proposed ABA bill which preserves the most significant equities of the present law but which at the same time provides for substantial procedural simplification.

(1) If two or more pending patent applications claim in substance the same patentable invention, the Patent Office shall issue a patent on the application

having the earliest effective filing date and the claims in the latter filed applications which are unpatentable over the issued patent shall be rejected on the patent.

REASONS

Both the ABA and the APLA have considered, or are considering, resolutions which are similar to the proposed procedure. This proposed procedure is directed toward the elimination of the declaration of interferences by the Patent Office.

(2) The filing date of the issued patent shall determine the term of the invention, and, hence, any later filed application which is awarded priority will have its term based on the effective filing date of the earlier filed patent, by means of a required terminal disclaimer or otherwise.

REASONS

The 20 year patent term extending from the filing date of the application is an aspect of the ABA bill. The premise of such a patent term is that society is willing to grant a patent monopoly only for a fixed period of time extending from the date of the disclosure of the invention to society. Since many of the objections to priority contests are based on the premise that the delays that are caused by the present interference practice unjustly postpone the expiration date of the patents involved, the present proposal would completely eliminate all such criticism, while at the same time preserving the rights of contesting parties to determine priority amongst themselves.

(3) The junior party in a priority contest can successfully contest priority based on the following principles:

"(a) When the earliest effective United States filing date of the applications or patents involved in a priority contest are not entitled to the benefit of the Paris Convention filing date, priority shall be awarded on the basis of the party to first actually reduce the invention to practice; providing, that such a party may not prove an actual reduction to practice date that is more than one year prior to his earliest effective United States filing date.

"(b) When the patents or applications involved in the priority contest are all entitled to claim a Paris Convention filing date, the party having the earliest Paris Convention filing date shall be entitled to priority.

"(c) When a party involved in a priority contest is entitled to Paris Convention filing date, and this Paris Convention filing date is prior to the earliest effective United States filing date of a party who is not entitled to a Paris Convention filing date, the party that is not entitled to the Paris Convention filing date shall be awarded priority only if he can prove an actual reduction to practice prior to the Paris Convention filing date of the other party; providing, that the party not entitled to the Paris Convention filing date may not prove an actual reduction to practice that is more than one year prior to his earliest effective United States filing date."

Conception and diligence are not to be considered in a priority contest. In the case of a concurrent actual reduction to practice and a constructive reduction to practice, the actual reduction to practice shall be awarded priority.

REASONS

Sympathy for conception and diligence arose at a time when inventors required long periods of time to perfect an invention because of inadequate facilities and a lack of accumulated know-how. It has been emphasized that the patent system today, however, is as important in encouraging investment as it is in encouraging invention per se. Thus, it seems that we should encourage not merely the generation of new ideas but the early actual completion of inventions, or in the alternative, an early filed patent application which adequately describes the invention. Once an actual reduction to practice is achieved, reasonable diligence in filing a patent application should be required.

From a practical standpoint, any simplification of interference practice must rely on a reduction of the number of issues which must be resolved and it must also rest on providing strong incentives to an early termination of the priority contest by both parties.

Since priority contests are valued primarily because they offer a more equitable solution to the problem of inventorship than a strict first-to-file system we should re-examine where the equities lie. It is quite apparent that a party in a priority contest who has spent time and money in actually reducing an invention to prac-

tice or who first filed a patent application which described the invention in such a manner that one skilled in the art could reduce the invention to practice prior to a reduction to practice by another party should equitably be awarded priority. However, when a party to a priority contest has conceived an invention and has not actually or even constructively reduced the invention to practice prior to an actual or a constructive reduction to practice by another party, it is by no means clear the equities lie solely with the first "diligent" conceiver. Technical "diligence" may be maintained at times under the present practice on an invention so as to bar later applicants when the party benefiting from this "diligence" could have committed more resources to achieve an earlier actual reduction to practice had he considered the invention to be of sufficient importance. Moreover, the order in which a party enters successive contests will not determine his rights as it does in the present practice.

(4) Section 100 of the ABA Bill will be modified so that the grace period will not be based on an arbitrary one year period for all applications but it will instead be based on the actual reduction to practice date of the applicant. Thus a publication which described an invention which was actually reduced before filing would be an absolute bar only if it were published prior to the actual reduction to practice date, providing however, that the applicant may not extend his actual reduction to practice date to more than one year prior to his effective filing date. When a publication is cited which has a publication date that is prior to the applicant's effective filing date but which is subsequent to the claimed actual reduction date, the applicant shall have the choice of arguing against the reference or of satisfying the Patent Office that he is entitled to the claimed actual reduction date.

REASONS

The one year grace period is to allow an inventor the time to determine the marketability of a product incorporating an invention that is actually reduced to practice. Under the proposal, an inventor who achieved an actual reduction to practice would have as much a grace period as he actually requires, up to one year, in which to file his patent application. However, there does not seem to be any equitable reason why a grace period should be allowed to a patentee who has not achieved a prior actual reduction to practice.

(5) An applicant who has achieved an actual reduction to practice prior to his effective filing date must make a claim for such an actual reduction to practice in order to rely on it later in a priority contest. The claim must be made prior to six months after his effective filing date and it must be accompanied by an oath or an affirmation of the applicant, which will not become part of the application file, that he believes that an actual reduction to practice was achieved prior to the effective date of the application and it shall state his alleged date of actual reduction. A statement is also to be filed if during a priority contest or during ex parte prosecution the applicant is called upon to prove the truth of his oath or affirmation. The statement is to specify, with particularity, facts on which the applicant relies, to support his claimed actual reduction to practice date.

A patent issuing on an application in which an actual reduction to practice has been claimed and which has not been proven to be unwarranted shall contain the words: "Claims the priority benefit of an earlier reduction to practice."

A party who does not file an actual reduction claim and the accompanying oath or affirmation shall be held to his effective filing date.

REASONS

The filed statement of a party who claims an actual reduction to practice shall be served on opposing parties by the Patent Office at an early time in the priority contest proceedings. Printing of the notice of the claim of an earlier actual reduction to practice will eliminate some prospective interferences before they are initiated and it will encourage a more prompt settlement of many other interferences since a clear indication of where the parties to the priority contest stand will often be available merely from the presence or absence of this statement.

(6) No priority contest by a junior party could be initiated more than one year after the issue date of the patent to the senior party.

REASONS

Since a priority contest can be initiated only at the option of the junior party there is no reason why he should not act with diligence in instituting the contest. This is especially true in view of the interim damage provisions of the ABA Bill, which provisions, moreover, seem to be equitably required in any legislation which provides for the publication of an application before issuance. By placing a one-year restriction upon the initiation of a priority contest by a junior party public criticism of priority contests on the grounds that they prevent alleged infringers from knowing the exact extent of their potential liability is minimized.

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS,

Washington, D.C., February 12, 1968.

Hon. JOHN L. McCLELLAN,

*Chairman, Subcommittee on Patents, Trademarks, and Copyrights,
Committee on the Judiciary, U.S. Senate, Washington, D.C.*

DEAR SENATOR McCLELLAN: The National Society of Professional Engineers has reviewed S. 2597, the patent revision bill sponsored by Senator Dirksen now pending before the subcommittee, and we respectfully offer the following comments for the record.

Our comments at this time are addressed to Section 31 of S. 2597, which would change existing law to limit future admission to practice before the Patent Office to members of the bar. This proposed change, as we understand it, has been proposed by the American Bar Association, but is not included in any of the other patent revision bills now being considered by the subcommittee.

We are most sympathetic with the idea behind the proposal in Section 31 of S. 2597 to elevate the standard required for practice before the Patent Office in order to improve the general effectiveness of patent practitioners and the operation of the Patent Office. Our own objectives for the engineering profession follow similar lines of purpose in connection with qualifications of individuals authorized to engage in the practice of engineering.

We believe, however, that if—as proposed in S. 2597—a provision is written into the law to specifically require admission to the Bar of a state or territory as a prerequisite to practice before the Patent Office, such provision should also include the requirement that future Patent Office Practitioners shall possess a degree in engineering or physical science from a college or school of recognized standing, or be registered as a professional engineer under the laws of a state or territory.

The patent law presently provides that the Commissioner of Patents may require agents, attorneys, or other persons representing patent applicant or other parties before the Patent Office "to show that they are * * * possessed of the necessary qualifications to render to applicants or other persons valuable service, advice or assistance in the presentation or prosecution of their applications or other business before the Office." Under the authority of this provision, the Rules of Practice of the Patent Office require that an applicant for admission to practice as a patent attorney or patent agent "shall establish to the satisfaction of the Commissioner that he is possessed of the legal and scientific and technical qualifications necessary to enable him to render applicants for patents valuable service."

The Patent Office's long-standing requirement that patent practitioners possess minimum "legal and scientific and technical qualifications" is based on the fact that the major part of the subject matter being presented to it and under consideration by it is of a highly technical nature. It is widely recognized, in fact, that as of any given date the subject matter of existing patents and pending applications for patents will generally reflect quite accurately the state of scientific and engineering know-how in the country. Because practice before the Patent Office is so technical, engineering or scientific qualifications inescapably are equally as important as legal qualifications.

The subject matter of patents and applications for patents, for example, in large measure involves technical delineation of structure and principles of operation of inventions, rather than the application and interpretation of legal prin-

ciples. In the course of prosecution of an application for patent, the issues most frequently encountered are those of distinguishing a claimed inventive structure over structures appearing in issued patents, and prior scientific and other literature (usually referred to as the "prior art").

The Patent Office employees who examine the patent applications and who seek out the applicable prior art for evaluating an application all have highly-specialized technical training. In recognition of the highly technical nature of this work in the Patent Office, the Civil Service Commission requires that both patent attorneys and patent interference examiners employed by the Patent Office have training equivalent to that represented by graduation (with a degree in one of the scientific or engineering disciplines) from an accredited college or university.

With such a high degree of technical ability necessary to insure adequate review of an application for patent presented to the Patent Office, it is clear that a high degree of technical ability is even more necessary in the preparation of the application in the first instance to insure adequacy of subject matter. And this need for technical ability as a requirement for patent practice becomes even more compelling when one realizes that a major part of practice before the Patent Office involves such first instance preparation of applications for patents and, where needed, their subsequent amendment to distinguish over prior art cited by the technically-trained Patent Office personnel.

The need for a high level of technical ability in patent practice has been recognized by a number of courts, including the United States Supreme Court. As recently as May 1963, while dealing with a matter relating to patent practice, the Supreme Court specifically noted the dual requirement of the Patent Office that "a person may be admitted [to patent practice] under either category [patent attorney and patent agent] only by establishing that he is of good moral character and of good repute and possessed of the legal and scientific and technical qualifications necessary to enable him to render applicants for patents valuable service * * *" (*Sperry v. Florida*, 373 U.S. 379 (1962)).

The latest figures available from the Patent Office show that of the 8,235 persons admitted to practice before that Office as of March 1, 1965, some 6,036, or approximately 73 percent, had technical degrees. All of them had some technical or scientific background or qualification. Of the 8,235 total, 6,352 were patent attorneys. Of these, again, approximately 73 percent had technical degrees. The records show, too, that these percentages have been climbing steadily in recent years. In fact, of the total increase of 943 patent attorneys registered with the Patent Office, between 1961 and 1965, 924, or 98 percent, had technical degrees. These figures demonstrate that among those admitted to patent practice technical degrees have become the rule rather than the exception, and technical competence has become a publicly recognized integral aspect of patent practice.

Under these circumstances, we strongly believe enactment of Section 31 of S. 2597 in its present form would be against the public interest and misleading to the public. Amendment of the existing law to require only that Patent Office practitioners be a member of the bar, with no similar requirement for technical and scientific competence, would unduly emphasize the legal aspects of Patent Office practice and seriously downgrade the technical and scientific competence required.

Section 31 of the patent law is, in effect, a Patent Office professional licensing law, and it is basic to all professional licensing laws that the primary purpose is to protect the public from unqualified practitioners. As stated in a recent Delaware case involving the state engineering registration law:

"It has been recognized since time immemorable that there are some professions and occupations which require special skill, learning and experience with respect to which the public ordinarily does not have sufficient knowledge to determine the qualifications of the practitioner. The Layman should be able to request such services with some degree of assurance that those holding themselves out to perform them are qualified to do so. For the purpose of protecting the health, safety and welfare of its citizens, it is within the police power of the State to establish reasonable standards to be complied with as a prerequisite to engage in such pursuits." (*Delaware v. Durham*, 191 A. 2d 646, quoting from *Clanton v. Bennett*, 5 Utah 152, 298 P. 2d, 531).

We believe that this fundamental principle should apply equally to Federal agencies. In light of the technological revolution which is now sweeping this country and others, and the explosion of technical knowledge which is taking place and promises to accelerate, there can be no doubt that it is necessary today for a qualified patent practitioner to have technical knowledge and education

in the subject matter with which he deals and that the public has come to rely on patent practitioners having such competence.

The argument is sometimes made that patent practice is just another type of law practice and that lawyers can and do practice in various specialized fields of law—but this ignores the basic difference of substance. The substance of contract law, labor law, criminal law, etc., is the law itself, composed of statutes and case decisions. But the very heart of patent practice is technology. A person without an extensive background of technical substance, no matter how skilled and devoted, cannot cope adequately with the application of the mathematical and scientific data which underlie patent applications and prosecutions.

The point sometimes is raised, too, that attorneys are not required to pass technical examinations to handle patent cases in the courts. This is true, but it certainly is not inconsistent with our position. A patent case in court turns primarily on the interpretation and application of the patent statutes and case law as related to the particular patent issue; hence, fundamentally the issues involved are legal. They do not require the same detailed technical analysis and explanation of physical facts as does the preparation and prosecution of an application in the Patent Office.

This basic difference between the qualifications necessary for the general practice of law and the technical requirements of patent practice is widely recognized within the legal profession itself. Canon 27 of the American Bar Association's Canon of Professional Ethics, for example, prohibits advertising by lawyers, but makes the following specific exception for patent and admiralty practitioners:

*"It is not improper for a lawyer who is admitted to practice as a proctor in admiralty to use that designation on his letterhead or shingle or for a lawyer who has complied with the statutory requirements of admission to practice before the patent office to use the designation 'patent attorney' or 'patent lawyer' * * **" [Emphasis supplied].

Patent practice and admiralty practice are the only two specialties in the law so recognized by the American Bar Association. The reason, of course, rests on the unique nature of the subject matter involved and, in the case of patent lawyers, the technical competence required. A further illustration of the recognition, both within the legal profession and by the public at large, that patent practice is a specialty apart from other fields of law, and requires a high degree of technical competence, is the separate listing frequently provided for patent attorneys in directories and similar publications. In the Washington, D.C., classified telephone book, for example, attorneys at law—whether they be general practitioners or specialists in tax law, labor law anti-trust matters, or other particular fields—are listed under the general heading of "Lawyers" but, significantly, patent lawyers—and apparently *only* patent lawyers—are listed under a separate heading.

In light of this, the confusion and harm which would result if the patent law were amended only to require that patent practitioners be members of the bar, without reference to the technical and scientific qualifications required, seems clear.

The records of the Patent Office show that from 1897 to 1922 agency practice was open to members of the bar without further qualification. This was changed, **however**, because experience showed it was not found to be effective as an assurance of competency for this particularly demanding practice. We submit that in the light of today's vast technological revolution, the evils that arose between 1897 and 1922 from admitting any lawyer into patent practice without proof of technical qualifications would be compounded many times over if we were to return to a modified version of that earlier, discarded procedure.

In the past it has been argued by some persons that eliminating or lessening the requirement that patent practitioners have a minimum technical competence would in no way open the door to unqualified practitioners since the ethics of the legal profession require that a lawyer undertake to represent a client only in those matters in which he is competent. But this simply begs the question. The ethics of the legal profession are not involved here. Professional engineers have a similar code of ethics. The basic question presented by Section 31 of S. 2597 is whether the existing law and procedure relating to the Patent Office should be changed in such a way as to dictate a situation where it would be possible for an unqualified person to represent himself as being capable of adequately handling important and valuable property rights of others.

Because we believe the ultimate objective in restricting patent practice is to protect the public, we strongly urge that if the patent law is amended to require that future practitioners before the Patent Office be members of the bar, it also be amended to require a showing of competence in the technical subject matter inherent in patent applications. This could be accomplished by amending the last sentence of Section 31 of S. 2597 to read:

"Only members of the bar of a State, Territory, District, Commonwealth or Possession of the United States who possess a degree in engineering or physical science from a college or school of recognized standing or who are registered as a professional engineer in any such State, Territory, District, Commonwealth or Possession may be recognized as representatives of applicants, or practice before the Patent Office, except those representatives recognized prior to the effective date of this Act." (underlining indicates new language)

We appreciate this opportunity to present our views and will be happy to furnish any additional information or comment you may desire.

Very truly yours,

PAUL H. ROBBINS, P.E., *Executive Director.*

NORTH CAROLINA CROP IMPROVEMENT ASSOCIATION, INC.,

Raleigh, N.C., February 7, 1968.

MR. BOB SMITH,
Office of Senator Sam J. Ervin, Jr.,
Senate Office Building, Washington, D.C.

DEAR MR. SMITH: I have passed on to our President, Mr. Ed Mann of Blount-Midyette & Co., Inc., Washington, N.C., your comments pertaining to the amendment to the patent bill relative to plant patents. We are appreciative of your help in providing the Crop Improvement Association an opportunity to enter a statement in the hearing records relative to this amendment. It is our understanding that Mr. Mann will have until April 1 to get a consensus from the seed interests here in North Carolina. I personally feel it would probably take him about this time to do so and I feel sure he would want to develop a statement which we hope would be useful to the Senator in developing a position on this amendment.

Again, thanks for keeping us posted on the amendment and we shall look forward to a later contact with the Senator.

Sincerely,

F. W. McLAUGHLIN,
Director in Charge.

THE PATENT LAW ASSOCIATION OF CHICAGO,

March 5, 1968.

Re patent reform bills S. 1042 and S. 2597.

MR. THOMAS C. BRENNAN,
Counsel, Patents, Trademarks, and Copyrights Subcommittee, Committee on the Judiciary, U.S. Senate, Senate Office Building, Washington, D.C.

DEAR TOM: I am pleased to enclose the statement of the Patent Law Association of Chicago on the above Senate Bills with the request that it be included in the report on the hearings conducted by Senator McClellan's Sub-Committee January 30-February 1, 1968.

In our recent telephone conversation, you indicated that you would be able to include this statement in the record if I got it to you by the middle of March. We had our board meeting yesterday and this is the earliest I could release the statement to you.

Thank you very much for your cooperation. If anything further is desired from us, please contact me immediately.

Hope to see you soon.

Very truly yours,

J. ARTHUR GROSS, *President.*

THE PATENT LAW ASSOCIATION OF CHICAGO,
March 5, 1968.

HON. JOHN J. MCCLELLAN,
*Chairman, Subcommittee on Patents, Trademarks, and Copyrights of the Senate
Judiciary Committee, Senate Office Building, Washington, D.C.*
Re patent reform bills S. 1042 and S. 2597.

DEAR MR. CHAIRMAN: We respectfully request that your committee carefully consider and place of record in the Reports of the Hearing Before the Sub-Committee on Patents, Trademarks and Copyrights held on January 30-February 1, 1968 the following statement on behalf of the Patent Law Association of Chicago.

The Patent Law Association of Chicago is the oldest patent bar group in the United States—dating back to 1884 and has over 700 members making it the second largest local patent bar association in the United States. Our Seventh Circuit Judiciary with its Court of Appeals located in Chicago has one of the most active patent dockets in the nation and our association since its inception has worked closely with the Federal Court in Chicago.

We are opposed to the McClellan Bill S. 1042 introduced February 21, 1967.

We have studied a copy of a letter (undated) addressed to Senator James O. Eastland, Chairman of the Committee on the Judiciary of the United States Senate, setting forth the Administration's views with regard to the patent reform measures now being considered by your sub-committee and we are gratified to learn that the Administration has changed its position on many of the sections set forth in the McClellan Bill S. 1042 in favor of the provisions set forth in the Dirksen Bill S. 2597.

The Dirksen Bill S. 2597 was introduced as a compromise because:

"It modernizes our patent laws without destroying the proven principles upon which the U.S. patent system is based solely for the sake of international standardization of inferior patent systems used in other countries." (Congressional Record—Senate, October 30, 1967, S. 15474).

S. 2597 was put together in just a few months under great pressure because we were advised that the Administration intended to rush enactment of S. 1042 into law making it "the first major change in our patent laws in over 100 years". The objectives of S. 1042 were to:

1. Raise the quality and reliability of U.S. patents.
2. To reduce the time and expense of obtaining and protecting the patent.
3. To speed up public disclosure of scientific and technological information.

Now, in less than one year after S. 1042 was introduced, the Administration admits the fallacy of many of its provisions.

Actually, the patent laws were codified in 1952 after many years of careful study and judicial interpretation. Further, recently introduced streamlined procedures in the United States Patent Office, fully authorized under these present laws, have already resulted in a decrease in the backlog of pending applications for patents to the lowest number since 1954 (see attached Department of Commerce News Release of February 29, 1968), and contemplated enlargement of the examining staff of the Patent Office should soon bring about the objectives of S. 1042 without any new law being required.

We therefore caution against rushing into enactment of any patent law which rewrites well-established and well-codified existing laws that have made the United States patent system so successful.

By way of example, we point out that our own further study of S. 2597 has brought forth the following recommendations in an attempt to correct deficiencies and possible confusion:

(1) Deletion of Section 100(h) (5). This section does not relate to the definition of "prior art", and the substance of this section is already included in Section 102 (d) and (e).

(2) Addition of the following at the end Section 100(g)—"and a new chemical compound shall be considered useful, *per se*". This addition would overcome the necessity of an inventor of a new chemical compound to prove commercial utility, and thereby reward the first inventor rather than one who came along much later and found commercial utility for such a new chemical compound.

(3) Clarification of the language of Section 151(a) as to whether payment of the publication fee is mandatory in order to obtain issuance of a patent.

(4) Inclusion in Section 123 of suitable safeguards to insure that voluntarily published applications meet certain minimum standards as to content and form.

(5) Inclusion in Section 136(d) of suitable provisions for reimbursement to a successful applicant, for his expenses, including attorneys' fees, entailed in the defense of a proceeding under this sub-section. This relates only to inter partes proceedings.

(6) Interferences. The existing interference statute 35 USC 135 shall remain in force and effect, but modified to provide:

(a) The exparte prosecution of a patent application shall be continued notwithstanding its involvement in interference proceedings.

(b) An application shall issue as a patent when in condition for issuance except for pendency of the interference.

(c) Upon issuance of an application which is involved in an interference the claims therein which are in the interference or subject to the outcome thereof shall become enforceable only upon favorable determination of the interference; with profits and damages, not less than a reasonable royalty, being recoverable retroactively to the date of issuance.

It is quite likely that further study will unearth additional deficiencies and will bring about further clarifications which have been overlooked due to the lack of time for all concerned to fully consider the issues.

Since the sponsors of S. 1042 have changed their views in less than a year after the bill was introduced and since S. 2597 may need further clarification, it is clear that ample time should be allowed for full debate on all the issues involved. Further study is being diligently given to this entire subject by our association.

This association would be most pleased to work with your committee or anyone whom you may designate in an attempt to resolve controversial and critical points that must arise in any contemplated major change of the U.S. patent system which has stood the test of time and remains the best in the world.

Respectfully submitted,

J. ARTHUR GROSS,
President.

[From the U.S. Department of Commerce News; for release Thursday, Feb. 29, 1968]

PATENT APPLICATIONS BACKLOG AT LOWEST NUMBER SINCE 1954

The backlog of patent applications in the Patent Office, U.S. Department of Commerce, has been reduced to the lowest number since 1954, according to Commissioner of Patents Edward J. Brenner.

Pending February 26 were 194,225 applications, a reduction from 200,739 on June 30, 1967, and from 220,115 in 1964. In June of 1954, 194,620 applications were pending.

Reductions are due largely to the Patent Office's "streamlined examining program," Commissioner Brenner said. This is a continuing program begun in mid-1964 to institute administrative changes and improvements to cope with the larger number of applications with no appreciable increase in staff.

Since the program began, the average annual rate of application disposals has been 97,000 as compared to an average of 77,500 for the preceding 10 years. The estimate for the current year is approximately 100,000 disposals. In fiscal year 1967, ending last June 30, a record number (70,000) of patents were issued.

Sixty percent of patents currently issued are in the general and mechanical field, 20 percent in the chemical field, and 20 percent in the electrical field.

MILWAUKEE PATENT LAW ASSOCIATION,
Milwaukee, Wis., February 23, 1968.

Re pending patent legislation.

SENATOR JOHN L. MCCLELLAN,
Chairman, Subcommittee on Patents, Trademarks, and Copyrights,
U.S. Senate, Washington, D.C.

DEAR SENATOR MCCLELLAN: At the suggestion of Senator William Proxmire of Wisconsin, we are sending this letter directly to you for the record and for your consideration as a supplement to the Subcommittee Hearings on Patent Law Revision conducted January 30, 31 and February 1. This letter represents the

position of the Milwaukee Patent Law Association on pending patent legislation, and is primarily directed to S. 2597 introduced by Senator Dirksen and S. 1042, the administration's bill which was introduced by yourself. This letter also supplements our earlier letter of April 7, 1967 which enclosed a paper on the Report of the President's Commission on the Patent System.

The Milwaukee Patent Law Association generally *endorses* S. 2597 and very strongly *opposes* S. 1042. The most fundamental difference between these two bills is the proposal in S. 1042 to change our present first-to-invent system to a first-to-file system.

Those urging a first-to-file system (whether or not modified to limit proofs of inventorship to arbitrary fixed periods of time prior to the application filing) suggest that such a system will provide an incentive to disclose technical information to the public through filing patent applications, which incentive allegedly is not sufficient under the present first-to-invent system. However, regardless of the resulting incentive to file—which is doubted—a first-to-file system will undermine the more fundamental *incentive to invent and develop*.

That is, each inventor, under the first-to-invent system, regardless of his means and facilities can continue to develop his invention in a diligent manner without the risk of losing his rights to seek patent protection. In a first-to-file system, this risk to the inventor is very real as in that system the first person to file will be granted the patent even though this first filer may not understand the invention nor have spent time and money developing the invention—as will probably be reflected in an uninformative and incomplete disclosure. Moreover, the inventor with more means and facilities to develop an invention at a faster rate is given the advantage. There is no logic in creating a system which reduces the incentive to invent in order to create incentive to disclose.

Considering the above plus the facts (a) that the present interference system involves a minute portion of the applications filed (b) that recent changes in interference practice have reduced the number of interferences and improved the practice and (c) that S. 2597 would further reduce the number of interferences and further improve interference practice, it is very strongly urged that the Committee give favorable consideration to the first-to-invent system found in S. 2597.

While generally endorsing S. 2597, we do, however, urge the following revisions to this piece of legislation:

(a) With respect to interference practice, as covered in Section 137, we ask that the duty to declare interferences be vested in the Patent Office. In our opinion, it is and should be a governmental function to minimize the issuance of two patents from the same invention, or to allow issuance of one patent for an invention when there is an apparent conflict between applications in the Patent Office.

S. 2597 has the applicant institute an interference. This is an unfair burden on an applicant who may determine that rather than to become involved in a legal proceeding he will take a limited patent and leave the issue of first inventor in doubt. The public will suffer, and we do not believe applicants will act in such manner that this important duty to the public will be taken care of.

(b) Regarding interferences, we endorse the proposal of others that a patent issue when the interference is declared with those claims in dispute included in the patent as "provisional" claims. We also suggest that this practice be carried over to applications on appeal to the Board of Appeals. Interim liability such as that provided in S. 2597 (Sections 271(f), 283(b) and 284(b)) would be applicable to any "provisional" claim subsequently found allowable.

(c) With regard to Section 119(a), first paragraph, we note that the following language which is present in the same section of today's law has been omitted:

" * * * but no patent shall be granted on any application for patent for an invention which had been patented or described in a printed publication in any country more than one year before the date of the actual filing of the application in this country, or which had been in public use or on sale in this country more than one year prior to such filing."

The foregoing language should be reinserted in Section 119, or Section 100(1) (3) should be amended to refer to the "actual" filing date instead of "effective" filing date. This would place foreign persons on the same footing as United States citizens.

(d) The present remedy available to an applicant whose application is withheld from issuance due to circumstances *beyond the applicant's control*, for example a secrecy order, is not adequate, viz. a claim for compensation damages

against the Government. The inequity of the remedy is particularly evident should the term of the patent be changed to run from the filing date as proposed in both S. 1042 and S. 2597. If the patent term is to be so changed, it is strongly urged for those circumstances of delay which are beyond the applicant's control that the term of a patent be extended a length of time equal to the delay, but running from the date at which allowability is finally determined.

Such a change is believed workable and equitable. S. 1042 would apply this procedure to applications under secrecy orders (Section 154(c)). We urge that this procedure be extended in S. 2597 to cover all similar delays by Government, such as those caused by investigation of title in relation to Government Contracts.

Our objections to S. 1042 are many, for we find in this bill several departures from our present law that would seriously cripple the effectiveness of the patent system and introduce changes of unproven, highly questionable value. Reference is made to our previous report on the President's Commission, accompanying our letter of April 7, 1967, for statements of our opposition to such innovations as elimination of a grace period and redefinitions of prior art to include acts abroad.

We wish to comment and object to certain aspects of S. 1042 which its backers continue to support, in spite of other recent changes in position.

(a) In rem invalidity of a patent (Section 294 of S. 1042)—This is extremely unfair, for a court that is quite prejudiced in its outlook upon patents could permanently strike down a patent which several other courts might clearly find to be valid. If one court has erred in its application of the standard of patentability, a patent owner should not be absolutely barred from seeking a correction in another trial.

The problem of a patent owner suing a second time on a worthless patent is miniscule. Proponents of S. 1042 cannot point to any statistics showing that there is any problem in this area. Furthermore, and most important, present law provides adequate safeguards from a predatory patent owner who might attempt a second suit on a quite clearly invalid patent.

The case books are already replete with decision clearly indicating to the patent owner that if he merely relitigates his patent the second court will give great weight to the opinion of the first court. This means, that in a sense we have a *quasi in rem* rule today which is qualified in that the second court will recognize clear errors of the first court and rectify an incorrect decision of invalidity. For example, we have the following:

"The Bendix decision (4th Circuit case holding the patent in suit invalid) may by comity be given great weight by the District Court after it hears testimony in a trial of the instant case on the merits. That consideration is committed to the discretion of the trial court." *Technograph Printed Circuits Ltd. v. Methode Electronics, Inc.* 356 F. 2d 442, 449 (7th Cir.)

"Very little of the evidence introduced in the Brian Jackson case had not been presented earlier before Judge Walsh—there were some differences in expert testimony. However, in all material respects, the issues and cited references were the same. Therefore, unless substantial evidence exists to the contrary, which I have been unable to find, the previous findings on validity should stand." *Brian Jackson Associates, Inc. v. Sam Manuel Copper Corp.*, 259 F. Supp. 793 (D.Ariz. 1966)

"We are satisfied, initially, that the finding of validity by the 7th Circuit Court of Appeals * * * is binding upon this court in the absence of persuasive new evidence of invalidity * * * despite the difference in parties." *American Photocopy Equip. Co. v. Rovico, Inc.*, 257 F. Supp. 192, 194 (D.Ill. 1966)

Thus, the law already has a flexibility which is far superior to a hard and fast *in rem* rule. In view of the case law, we can be assured that no patent owner will indulge in the folly of taking a weak patent to court a second time. Also, we should not forget that in a second case, the patent owner becomes exposed to the payment of attorneys' fees, 35 USC 285.

(b) Redefining prior art—S. 1042 redefines prior art to include uses and sales anywhere in the world. Present law confines uses and sales to the United States, an area for which inventors may be imputed to have significant knowledge. To include all foreign countries artificially includes prior art of which an American inventor could have no knowledge. In our thinking, we would be impairing the prime purpose of the patent system of encouraging inventors in the United States.

In an infringement action a wealthy defendant could cause untold expense for the litigant by investigations and discovery proceedings of uses and sales throughout the world. The validity of an United States patent would become

more uncertain that it is today, which is a result diametrically opposite the espoused purpose of patent reform legislation. We should not weaken our patents by redefining prior art as in S. 1042.

(c) Burden of persuasion—Section 137 of S. 1042 states that an applicant shall have the burden of persuasion. This has no place in a statute. It is the duty of the Patent Office to apply Section 103 and to make a determination of whether or not an invention is obvious to one skilled in the art. If we include Section 137 of S. 1042 in the statutes, we will then have another, new ground for rejecting applications, namely the applicant didn't meet his burden. If a statute on burden of persuasion is enacted, it will be interpreted as having some new significance, and this would be that some burden of proof is to be assessed in addition to the unobvious test of Section 103. An examiner could shirk from applying Section 103 and create issues regarding sufficiency of evidence that would be difficult to handle, and which would divert patent prosecution from the prime purpose of applying Section 103. In the law of evidence, instructing a jury as to burden of proof may have a salutary place, but in creating a statutory burden here would lead to confusion in attempts to evaluate the burden. It is better to not have any statute such as proposed Section 137.

In conclusion, our position is that S. 2597 should be the basic framework for any patent legislation. We could criticize S. 1042 at great length, and we have been prepared to do so, our association having held many meetings on the subject of patent reform legislation since before the issuance of the Report of the President's Commission. However, in view of the changing position of the administration we have confined our remarks herein to but a few points.

Yours truly,

RICHARD C. STEINMETZ, *Patent Attorney.*

CHARLES S. PHELAN,
Millington, N.J., February 19, 1968.

Re: patent reform legislation.

HON. JOHN L. MCCLELLAN,
Senate Office Building,
Washington, D.C.

DEAR SENATOR MCCLELLAN: Enclosed are four copies of a statement setting forth the current position of the New Jersey Patent Law Association on patent reform legislation, including S. 1042—McClellan and S. 2597—Dirksen.

Briefly, we prefer enactment of a bill along the lines of S. 2597 if a general revision of patent law is contemplated. Our statement indicates why we take this position and identifies specific areas where we favor change if amendment, rather than general revision, is contemplated.

We would appreciate having this statement of the New Jersey Patent Law Association included in the record of recent hearings held by the Subcommittee on Patents, Trademarks and Copyrights of the Senate Judiciary Committee.

Very truly yours,

CHARLES S. PHELAN,
Chairman, NJPLA Special Committee on Patent Reform Legislation and
Patent Cooperation Treaty.

STATEMENT OF THE NEW JERSEY PATENT LAW ASSOCIATION ON THE PATENT REFORM
BILLS—S. 1042, S. 1691, S. 2164, AND S. 2597

The New Jersey Patent Law Association is an organization of persons engaged in various phases of activity involving intellectual property such as patents, trademarks, and copyrights. Over 340 members are included on the NJPLA roster. They are drawn from all parts of the State of New Jersey and also include associate members from other states. The members are in some cases self-employed, and in other cases they are employed by others. Our organization has often considered proposals for changing various aspects of the law, both in Congress and in the New Jersey Legislature, and has, over the years, supported many proposals and opposed many proposals.

We have participated from the outset in the current activity looking to modification of the patent laws of the United States. Shortly after the President's Commission on the Patent System was appointed and requested suggestions, we filed with it a report of our preliminary views. During the Commission's deliberations we participated in poll taking operations requested by the Commission when

it sought the views of the bar. However, our offers of further consultative assistance were not accepted. The Association has successively considered the report of the Commission, the proposed Patent Reform bill of 1967, which is designated S. 1042, and S. 1691, S. 2164, and S. 2597. The Association position at each stage was developed initially through committee activity for study in depth, subsequently through the formulation of resolutions indicating a position, and finally by discussion and voting by the assembled membership at regularly noticed meetings. A sincere effort was made at these meetings to present all arguments that could be assembled, both pro and con, to the membership before bringing any matter to a vote. Thus, the substance of the material presented here is not the view of just a few; it is the view of a majority of the members voting at meetings announced for and directed exclusively to those subjects.

In all cases, the Association members and committee members have devoted a great effort and valuable time to this project. This was done even though their contributions tended to reduce a bonanza, for the Patent Reform Bill of 1967 in its present form has often been characterized by the bar as a potential "money tree" for patent attorneys.

GENERAL REMARKS

The report will attempt to relate the principal ones of the mentioned bills to the practical problems of an inventor who is attempting to secure a patent and of the public in its attempts to evaluate issued patents for license, for infringement avoidance, or for a jumping off point for further intellectual development, i.e., for making further "progress of * * * useful arts."

The general thrust of our position to be developed in the following remarks is that we support S. 2597—Dirksen, the so-called "ABA proposal," in preference to various other bills under consideration.

The Patent Act of 1952 under which the United States Patent System is now operating is in substantial measure a codification of the patent laws as they had been legislatively and judicially formulated up to that time. That was fifteen years ago, and still disputes reach the courts to ascertain just what the Act means. This is probably the inevitable fate of laws written by men, but it is to be expected to a greater extent from legislative proposals that significantly change a system under which operations have been carried out for many years. The Patent Reform bill, or any overall rewriting of the Patent Law, would make just such a change; and it can, therefore, be expected to generate considerable interpretive litigation even without considering inevitable drafting mistakes, oversights, and questions as to the constitutional propriety of some changes.

The Report of the President's Commission on the Patent System is a useful tool for evaluating patent reform bills. The objectives stated by the Commission have probably drawn more universal approval than any other aspect of its report. Some contend that the objectives are not clearly reflected in all of the Commission's recommendations or that some recommendations would move too rapidly toward certain objectives, but we are unaware of any criticism of the objectives themselves. Because of the importance of this common thread of understanding, the six objectives of the Commission are reproduced here:

1. To raise the quality and reliability of the U.S. patent.
2. To shorten the period of pendency of a patent application from filing to final disposition by the Patent Office.
3. To accelerate the public disclosure of technological advances.
4. To reduce the expense of obtaining and litigating a patent.
5. To make U.S. patent practice more compatible with that of other major countries, wherever consistent with the objectives of the U.S. Patent System.
6. To prepare the Patent System to cope with the exploding technology foreseeable in the decades ahead.

One further criterion is also employed herein to evaluate changes. This criterion was stated last year by Mr. Frank Pugsley, of the American Patent Law Association, and is to the effect that any change should be well designed to meet the need that fathered it; and it should not at the same time create new problems of equal or greater severity.

The Commission's objective No. 5, international compatibility, should be of minimal significance in present patent legislative considerations because it is understood that in general the parties currently considering a Patent Cooperation Treaty are agree that required changes in national law are to be avoided. Nevertheless, if international compatibility is the principal motivation for a

particular change, one must examine closely what factors make it work wherever it is presently being used, whether or not those factors will be equally operative in this country, whether or not there are other factors that will be operative in this country, and what new problems are to be anticipated in this country. In addition, one must evaluate any features adopted from other countries in terms of learning whether benefits realized, and transferable from abroad are of at least comparable magnitude to benefits flowing from what is to be eliminated here.

DEFENSIVE PATENTING

Before entering into our outline of significant specific patent reform problems, the broader problem of defensive patenting should be mentioned. Defensive patenting is practiced by the United States Government and by the private sector. Patent applications are filed and patents obtained on inventions which are thought to be patentable in order to protect the applicants' right to use the inventions any time in the future by preventing anyone else from obtaining patents on the same concepts. Note that under present law one can raise an infringement defense of prior invention by himself or someone else; but if the alleged prior inventor had stopped short of commercial use, publication, or patent application before a subsequent patentee came into the picture the prior inventor may be deemed unqualified for the defense because it may be argued that he suppressed the invention. A defensive patentee does not have that qualification problem and has even cut off the subsequent inventors' patent rights thereby also preventing litigation in the first instance. The defensive patenting technique is also employed sometimes by parties who are uncertain as to the patentability of a concept, but they are sure that they are going to commercialize it.

Of course, a certain amount of financial wherewithal is necessary to carry the defensive patenting expense. Less affluent organizations usually confine their activities to prosecuting applications on inventions that they are reasonably sure of using currently.

It is apparent that defensive patenting currently comprises a significant part of the burden on the operations of the Patent Office. No solution to the problem is yet seen because there is not yet evident, for a possible defensive applicant, a more convenient or less expensive technique for defending against possible future infringement charges. All is not bad, however, because defensive patenting brings many worthwhile disclosures to the public attention for promoting the progress of the arts. The problem of defensive filing and patenting is of interest when considering patent law reform because one should be aware of changes in the defensive motivation that would be generated by changes in the law. Any motivation change necessarily results in a change in the burden on the Patent Office operations. The NJPLA members are of the opinion that to the extent that an applicant is deprived of patent rights by the denial of opportunity to prevail on the question of priority of invention, his motivation to practice defensive filing of patent applications will be increased. That is, he will feel forced to file earlier and follow that action up with subsequent corrective filings as the preferred format evolves through testing and analysis. This repetitive type of filing activity represents wasted expense and effort for both the applicant and the Office, but it would be essential in the sense of establishing dates on each phase of development to fix priority and to avoid the possible need to prove derivation.

REASONS FOR NJPLA SUPPORT OF S. 2597

Two bills, S. 1042 and S. 2597 seem to be the focal points of patent reform consideration. Both S. 1042 and S. 2597 would accomplish a number of changes which the New Jersey Patent Law Association believes are particularly desirable at this time. These are:

1. Interim liability for infringement after publication of an application and notice of possible infringement.
2. Twenty-year term measured from the filing date of application in U.S.A.
3. Assignee filing of patent applications and more liberal rules for joinder and correction of inventors named in an application.
4. Citation period for the public following publication of allowed patent applications.
5. Infringement liability arising from importation of articles manufactured abroad by a process that is covered by a U.S. patent.
6. Elimination of reasons for appeal in Notice of Appeal to Court of Customs and Patent Appeals.
7. Publication of applications after allowance.

As between S. 1042 and S. 2597, our Association prefers S. 2597 because S. 1042 would invoke a number of changes that we believe are not in the best interests of our nation. In this latter category are the following:

1. Redefinition of prior art and its effective date with the effects of:

(a) Replacing our first-to-invent system with a first-to-file system.

(b) Eliminating interference procedure.

(c) Eliminating the one-year grace period before U.S. filing during which an inventor can openly discuss, publish, or manufacture and publicly test his invention without losing his right to a patent.

(d) Make use any place in the world a bar to a U.S. patent even though it may, as a practical matter, be unavailable in the U.S.A. to promote the progress of the useful arts.

2. Institute a system of preliminary application filings to establish an "invention" date.

3. Exclude the process technology of computer programs from the category of patentable process subject matter.

4. Require mandatory publication of patent applications after a certain post-filing interval regardless of whether or not they have been examined for operativeness, completeness, or even patentability.

5. Create a standby optional deferred examination system which can be invoked by administrative action to change the character of the patent examination system.

6. Codify an unusual form of presumption of administrative correctness on Patent Office refusal to allow a claim.

7. Alter the lines of appeal from the Patent Office to the extent of causing appeals from decisions of the Court of Customs and Patent Appeals to be heard by the Court of Appeals of the District of Columbia if the latter grants leave therefor.

8. Institute a procedure for cancellation of a patent upon the citation of art by third parties.

9. Limit reissue applications to claims of the same or narrower scope than those in the original patent being reissued.

10. Eliminate the practice of avoiding a charge of double patenting by disclaiming the terminal portion of the term of all but one of commonly owned patents so that all expire concurrently.

11. Omission of statement of a rule of reason for determining misuse in connection with transfer of rights under patents and patent applications.

12. Create an office of Civil Commissioner for expediting discovery and pretrial procedures.

13. Patent Office fees to be administratively fixed to recover a certain percentage of costs.

14. Continue present burdensome arrangement for securing licenses from the Government for all filing abroad.

Other bills than S. 1042 and S. 2597 which have been introduced in the Senate have been reviewed by the New Jersey Patent Law Association. However, such other bills have been found to incorporate either too few of the needed changes or too many of the undesirable ones. Such extensive amendment would be required to make them acceptable that they are not considered to be suitable vehicles for patent law reform at this time.

To maintain proper perspective, certain additional factors should be noted. Three additional aspects of S. 1042 have been previously supported by NJPLA but are deemed to be of insufficient importance to warrant changing S. 2597 to incorporate them. These are:

Sec. 15.—Statutory Advisory Council if the Secretary of Commerce were encouraged to seek recommendations for appointees from various scientific and bar associations.

Sec. 137.—Burden of persuasion.

Sec. 294.—Estoppel and cancellation but only to the extent of patent invalidity, not to the extent of claim scope limitations.

The members of NJPLA have also indicated approval of the change in S. 2597 Sec. 119(a) to require a statutory bar to be effective more than one year before an application *effective* filing date, rather than the actual filing date as under present law; but it is understood unofficially that such change was not actually intended by the drafters of S. 2597.

NJPLA also suggests certain amendments to S. 2597 which are not extensive but which are believed to be desirable to facilitate operations of the patent system. Thus, it is suggested that Sec. 137(a) and related sections be amended to delete the requirement that a pending application must be "otherwise allowable" and to change the requirement for an "issued patent" to one for "an allowed published application." These two changes are desirable to cause priority determinations to be instituted as promptly as practical. Thus, the proceedings should not be delayed to prosecute noninterfering subject matter to allowance in an application to make it "otherwise allowable," and they should not be delayed while Sec. 136 determinations are running their course before a patent issues.

NJPLA supports the suggestion of the Department of Commerce that Sec. 137(a) and related sections, such as 104 and 102(e), be amended to permit foreign applicants to prove foreign acts of invention prior to their effective filing date to obtain a patent. We further suggest that in inter partes proceedings such proofs must be made in the United States or at the expense of the party offering such proof. This change would place all applicants on a more equal footing and would remove one of the major foreign objections to our present priority contests.

Sec. 154 of S. 2597 should be amended to provide, as does Sec. 154 of S. 1042, that the twenty-year term of a patent would be extended to offset the effects thereon of delays due to the imposition of a secrecy order.

Our subsequent remarks are directed to a more detailed treatment of various aspects of S. 2597 to show why we believe some of its differences from S. 1042, or from what we understand to be the current position of the Department of Commerce, are preferred.

FIRST-TO-FILE SYSTEMS

Major difference among patent law reform protagonists has been a technique by which a patent office can be enabled to cope with an ever-mounting fund of human knowledge without (a) similar mounting in its work backlog, or (b) outrageous expenditures of funds, or (c) violating the objectives of the President's Commission. It is assumed that a successful technique would enhance realization of those objectives.

One target of attack by proposed legislation has been the patent interference proceedings which are a prominent feature of our present first-to-invent system of patenting. It is asserted that such proceedings, though involving a small percentage of applications:

(a) Significantly extend the average pendency of applications.

(b) Keep significant inventions secret for too long thereby permitting injury to industry when the cases involved do finally issue because their delayed issue because their delayed issue can make them have disproportionately greater influence than they would have had if industry had been apprised in a timely manner so it could design around or make new inventions.

(c) Waste national resources in their prosecution.

Now the pendency extension of the overall body of applications seems arithmetically insignificant because of the relatively small number of cases involved in interference. Interferences are understood to involve less than two per cent of all applications filed. Similarly, resource waste is also hard to visualize as an item of enough significance to warrant all of the sound and fury that has been vented. Furthermore, there is evidence that new, administratively-instituted, interference procedures may be reducing both the proportion of cases getting into interference and the duration of each interference. This leaves us with the secrecy problem which can be readily solved by other means, e.g., publication on allowance or appeal or interference as has recently been suggested by the Commerce Department.

In terms of objectives of the President's Commission, quality and reliability of patents are actually enhanced by interference proceedings because those proceedings put a case to severe inter partes tests before issuance. The result should be a better and more reliable patent than would result from any system without such proceedings.

First-to-file oriented systems are not likely to serve the objectives of the President's Commission because, for example, they tend to force extensive, costly, defensive filing of applications and to force greater secrecy among inventive colleagues in science and industry. This situation would arise from fear of tipping one's hand prematurely and of outright theft. Thus, if one either steals an idea, or otherwise learns of it and guesses at some possible dominating im-

provements without determining their operability, he can cut off the rights of the true inventor by simply winning the race to the Patent Office while the true inventor is testing out his ideas. The true inventor may, if he can afford the expensive process of proving derivation, be able to defeat the patenting of the stolen idea by the thief; but he cannot obtain the patent himself. In the case of the improvements, the true inventor is completely out of luck because he spent his time testing his ideas instead of racing to the Patent Office.

The net result then is that a conversion from our present first-to-invent system to any other system would appear *not* warranted unless Patent Office interference searches are a serious burden on the Patent Office and a proposed new system would eliminate them. A first-to-file type of system could eliminate them; but the price paid in defensive filing increase, cost increase to both the price paid in defensive filing increase, cost increase to both applicants and government, and quality and reliability reduction is disproportionately high and is not recommended. This is the same for any first-to-file system which is *not* coupled with some realistic form of arrangement that will:

(a) Encourage early entry into the patent system for significant inventions;

(b) Not force people to file and thereby swamp a system with defensive filings; and

(c) Provide an adequate defense for one who believes an invention unpatentable, proceeds to commercialize it, and later finds that the Patent Office granted a patent to a later inventor on the same thing.

Arbitrary proof time limits encourage entry, but they also force one to file and may lack the needed defense depending upon which first-to-file system is under consideration.

The priority system of S. 2597 would allow and publish the first application on a particular invention which is ready for allowance. Any other inventor with an application on the same invention must provoke interference proceedings to determine priority. This system should require no interference search in the Patent Office, but there is at least some argument that under some circumstances the Office may find itself required to issue two patents on the same invention even though it was aware of the conflict before the publication of either case. This could occur where the junior case is allowed and published while the senior case is delayed for an appeal, but neither the junior nor the senior applicant elects to oppose the other under Section 136 or 137. If that problem is resolved, the S. 2597 format would be advantageous in that no interference search would be required and an applicant would have the same encouragement, without forcing, to enter the patent system as under present law.

PRELIMINARY APPLICATIONS

The New Jersey Patent Law Association is opposed to the preliminary application practice proposed in S. 1042, for the reasons that it also does not serve well the objectives of the President's Commission. Such practice will greatly increase forfeitures by less sophisticated inventing organizations. The difficulties of defensive filing will probably also be greatly complicated by the imposition in S. 1042 of limitations on continuation application practice and terminal disclaimer practice.

Increased forfeitures will result from inadvertent failure to follow up with a timely complete application or from failure to employ adequate care to be sure that the preliminary application contains a disclosure comparable to that required for complete applications (compare in S. 1042 Sections 112(a) and 120(a)(2)). The problem of forfeiture also has foreign filing implications because the convention year will be measured from the date of the preliminary and because of foreign filing license requirements in Section 184. Unless one is planning to seek a separate license for every application, the time for filing his complete application is reduced to only several months after his preliminary application is filed. He then awaits expiration of the six-month license delay time of Section 184 for automatic foreign filing license, and he has thereafter several months to file any desired foreign applications before the expiration of the twelve-month convention period which is measured from the preliminary application filing date.

More recent proposals by Commissioner Brenner for a modified form of preliminary application practice to go along with any patent reform are believed to be no real improvement. The newer proposals would permit an applicant to

file his descriptive part of his application for a greatly reduced fee to secure a date and follow with the drawings, the claims, and the balance of the fee within one year. It ignores, however, the problem that it may be quite impractical to prepare a proper description without also preparing drawings and compatible claims. The applicant's principal expense of preparation is not, therefore, reduced at all, and the part of the filing fee initially retained by the applicant is likely to be relatively small by comparison.

EXCLUSION OF COMPUTER PROGRAMS FROM THE CATEGORY OF PATENTABLE SUBJECT MATTER

Numerous arguments have been put forward by proponents of eliminating patentability of computer programs. Such arguments can be characterized only as *excuses* for not recognizing patentability rather than *reasons* for not doing so. Programs are process technology and can be readily treated as such in the Patent Office. Admittedly this new process technology may require significant additional expense for Office operation, but that is a possibility with which the present Office fee schedule was designed to cope, and it is one that the Congress will surely recognize in its budget deliberations.

All of the Commission's objectives which are relevant to patentability of computer programs are dependent on the sixth objective of preparing the patent system to cope with the exploding technology. Computers and their controlling programs probably offer the one real avenue that has significant potential for preparing the patent system to cope with the exploding technologies simply because computers and their programs probably hold the key to practical information retrieval. Thus, it would appear that if patent protection is denied to computer programs, the trend toward the use of trade secrets will increase in that field. The result may well be a significant delay in bringing to fruition the information retrieval invention that is needed to meet nearly all of the Commission's stated objectives.

It is urged that the Patent Office be encouraged to make an all-out effort to gain a real understanding of computer programs and their uses. The Office should also be encouraged to develop an appropriate classification technique and search files in order to cope with the computer program technology. It goes without saying that the Patent Office, all other Government agencies, and all parts of private industry should continue their search for improved information retrieval techniques. Finally, patent protection should be afforded computer programs to the same extent that it is afforded to other process technologies in order to encourage that search effort.

PUBLICATION BEFORE ALLOWANCE

Section 123 of the Patent Reform Bill S. 1042 would require that all applications be published at eighteen to twenty-four months after filing unless applicant elects to abandon the application. Exceptions would occur in cases where an applicant requested earlier publication and where a case was allowed and published under Section 151 before the mentioned time. S. 2597 would limit publication to the latter two cases. The New Jersey Patent Law Association opposes any publication before allowance, even in cases where applicant requests the publication; but we support publication after claims have been allowed. A principal reason for the opposition is that we object to *providing by law for the Government becoming a publishing house at the demand of an applicant. We object more particularly to the Government taking on that function with no mechanism built in for screening out unworthy publications.* Even in present technical journals there is some screening exercised by the editors to assure that their facilities and their readers are not imposed upon.

Publication in connection with allowed patent applications assures some level of worthiness. Without such screening the flood of disclosures that could be required to be published, stored, indexed, and searched by both Examiners and private searchers could truly easily become an exploding technology that would tend to hide by its bulk the worthwhile concepts lingering therein. Furthermore, the cost of coping with such bulk and the increased likelihood of missing relevant anticipatory references, are inconsistent with objectives of the President's Commission.

It is argued by proponents of preallowance publication that it will accelerate disclosures to the public. However, it is believed that the real tendency would be to encourage secrecy for good ideas and encourage defensive filing and publica-

tion for ideas of lesser importance. Thus, where one could otherwise profit by secrecy with respect to a worthwhile idea, he will be inclined to do so if it appears that his idea may be published before he can determine with some certainty that he can get a patent to protect his own use of the idea for some time. On the other hand, a flood of the less significant ideas is likely to occur where the applicants may have defensive considerations, e.g., scaring off potential competition or trying to protect applicant's own use of the ideas, in mind and secret operation would be of little or no help. The net result then of early, preallowance publication is expected to be to encourage publication of unworthy ideas and discourage publication of worthwhile ideas. Thus, the disclosure publication that is accelerated is of the wrong type for significantly promoting the progress of the arts, and a great proportion of such publications tend to flow from defensive filing and thus are costly in terms of the drain on the economic resources of the nation.

Early publication would make our patent system more like the systems of the registration countries where the burden of sifting out the patentable concepts is placed on the courts, which in this country are already so overloaded that they represent a further whole problem area which should not be made any worse. The proposed early publication may be similar to the system of Holland where deferred examination is practiced, but that again is a separate problem subsequently dealt with herein.

For the reasons stated, we recommend that Section 123 be dropped from S. 2597 or any other bill that may be considered for enactment. More particularly, we recommend that no system be instituted which would result in publication before allowance.

DEFERRED EXAMINATION, STANDBY OR OTHERWISE

S. 1042 would permit the administrative institution of a deferred examination system when the Secretary of Commerce believes such would be in the public interest. All, or selected groups of cases could be deferred for up to five years as far as examination is concerned but must "be published as soon as practicable." The examination of deferred cases could be triggered by the applicant or any other person simply by paying the proper fee. Apart from the question such as the propriety of administratively altering the whole basic approach to the patent prosecution philosophy, the provision of standby authority, as distinguished from outright present implementation, is not seen to meet any of the objectives of the Commission. Any compliance with an objective must be found in the deferred procedure itself.

The principal changes worked by deferred examination are the deferment and the associated early publication. These two aspects are asserted to be beneficial, but they also create significant problems that are inconsistent with the Commission's objectives. The problems of early publication are the same as those already outlined in connection with early publication per se, i.e., the tendency to suppress good ideas and the tendency to proliferate unworthy publications to the end that searching becomes harder, more expensive, and less reliable. The publication of unexamined applications would make businessmen uncertain as to whether or not they should proceed with a project if they find an application with claims that may be made either broader or narrower during ex parte examination. How, then, does one avoid infringement? He might trigger the prosecution of all relevant cases by paying enough basic fees for those applicants, his competitors; or he might risk proceeding and trying to avoid an injunction if relevant patent claims issue. It is an *unfortunate choice to be forced into and could lead into either a serious slowdown in the introduction of new products or legislated compulsory licensing to reduce the mentioned risk.*

One final point must be made about deferred examination and preparing the patent system to cope with the exploding technology. Any time that would be made available for more thorough searching and examination would be that resulting from the examination of fewer applications. Accordingly, we would still be in trouble with respect to the exploding technology because *we would be saddled with a system that is inherently capable of examining fewer, not more, applications.* Therefore, all things considered, the New Jersey Patent Law Association recommends that deferred examination, standby or otherwise, be dropped from consideration in any patent reform legislation. S. 2597 is not subject to the deficiencies of deferred examination.

REVIEW OF PATENT OFFICE DECISIONS

Section 148 of S. 1042 would change the present dual lines of appeal from the Patent Office to the Supreme Court to an arrangement with an additional appellate level that is common to both lines. Presently appeals go either through the Court of Customs and Patent Appeals to the Supreme Court or through the District Court and then the Court of Appeals for the District of Columbia to the Supreme Court. Section 148 of S. 1042 would require appeals from the CCPA to go through the Court of Appeals for the District of Columbia. This proposal has a number of problems, such as the anomaly of a small number of judges in the Court of Appeals reviewing decisions of a larger number of judges in the CCPA.

The President's Commission cited in its report that difference in standards of patentability applied by the CCPA in Patent Office decision appeals and by other Federal courts in infringement actions. The Commission seemed to believe that a change, as in Section 148 of S. 1042, would cure the difference. However, the various circuit courts of the nation evidence a wide degree of difference among themselves on patent validity questions and Section 148 cannot affect that. The fact that the CCPA has limited jurisdiction not including infringement matters seems quite irrelevant to the decision of patentability questions by it, and infringement questions by courts in various Federal circuits. The Court of Appeals that Section 148 would bring into the picture has infringement jurisdiction, but it does an insignificant amount of infringement work or other patent work so there would be little to be gained in the direction sought by the Commission by injecting an appellate level that is really in a different world from other Courts of Appeal when it comes to infringement litigation.

A preferred solution to conflict between the CCPA and the District Court for the District of Columbia would be that in S. 2597 of adding a trial part to the CCPA jurisdiction and giving that court sole jurisdiction of the Patent Office appeals. Some concern has been expressed about having CCPA judges review each other's decisions. We believe, however, that such concern is not justified because it is well known that the CCPA judges have evidenced no reluctance to issue vigorous dissents in patent litigation before them.

We know of no legislative proposals pending that would satisfy the Commission's goal of reconciling patentability standards in infringement and Patent Office appeal cases. Both S. 1042 and S. 2597 would reduce differences between the CCPA and the District Court, but S. 2597 is the only one that would place the patent work with the court having most experience to handle it and at the same time reduce the docket load of the District Court to facilitate the consideration of other pressing matters within its jurisdiction.

CANCELLATION

Section 257 of the Patent Reform Bill would permit anyone to petition within three years of issuance of a patent that a claim thereof is invalid. The patentee could, in response to a decision adverse to him, amend or request reconsideration. The fees specified are really too high to warrant a disinterested party trying to cancel a patent, but they are too low to discourage a wealthy interested party from harassing a less fortunate competitor. Speaking of harassment, Section 257 relieves Government agencies and departments of the burden of payment of anti-harassment fees and costs. It is further noted that most parties confronted with a significant patent would prefer to attack it in court where there is no opportunity to amend rather than bring a cancellation petition and let the opponent strengthen his claim by amendment. Thus, any possible benefit of improving the quality and reliability of patents is more than offset by the harassment potential; and the cancellation proceeding will tend to increase, rather than decrease, costs of applicants and the Patent Office. S. 2597 omits cancellation proceedings and leaves the public to the use of post-publication citation of art, and declaratory judgment actions. The latter approach is preferred by NJPLA.

REISSUE

NJPLA favors the provision of S. 2597 which permits the reissue of a patent within one year of its original issue to broaden claims which were mistakenly made too narrow. This provision reduces the time limit from two years in the present law and is believed to be a reasonable time for the purpose without leaving the public too long uncertain about the possible ultimate scope of the claims. The provision also is consistent with the philosophy of other provisions that have

been in the law for many years which recognize the possibility of mistakes either by the Patent Office or by the applicant and allow for the correction of both types of mistakes noticed either during prosecution or after issue.

TERMINAL DISCLAIMERS

NJPLA favors the provisions of S. 2597 which permit the use of terminal disclaimers to avoid double patenting charges where all relevant cases are in common ownership. This position is in contrast to the provisions of S. 1042 which would prohibit such use. The President's Commission favored the latter view because it considered the existence of two such similar patents to be an undue extension of the monopoly. However the Commission's view represents a largely academic position with little or no practical effect.

Opponents of the cited use of terminal disclaimers contend that it can be used to draw patentably indistinct variations into later cases. However, if the variations are truly patentably indistinct there has been no injury to the public. For example, it is likely that the variation would be considered to infringe the claims of the first patent anyway. Representatives of the Department of Commerce cite the problem of one who develops a noninfringing modification of an invention in an issued patent to find later to his sorrow that a continuation issues on his modification. The example dealing with continuation applications should create no difficulty because the parent application is often abandoned after a continuation is filed and because the continuation presumes the same termination date for both parent and continuation patents so no terminal disclaimer would be involved anyway.

There may be some problem area outside the continuation problem range and regarding commonly owned patents of different inventors on related subject matter. There are then the questions that (a) if the difference between the patents is slight and noninventive perhaps the independent developer is really using the basic invention and should pay tribute, or (b) if the difference is more significant there may be separate invention and the developer should not go free because the common assignee happened to settle the double patenting issue with the Patent Office by terminal disclaimer rather than keeping the invention bottled up in secret in the Patent Office for several years for an appeal.

It is sometimes argued that the cited use of terminal disclaimers would discourage people from inventing around patents. However, if they were really inventing in a patentable sense there would be no double patenting situation. Accordingly, it is not seen that the limitation on terminal disclaimer effect that would be newly imposed by S. 1042 would work in furtherance of any of the objectives of the President's Commission. The codification of present terminal disclaimer practice in S. 2597 is favored by NJPLA.

PATENT OFFICE FINANCING

The NJPLA favors the provisions of S. 2597 establishing a fee schedule similar to that presently in existence. The philosophy of partial cost recovery for particular services has now been established, and the Congress can readily enact different fee schedules in conjunction with consideration of Patent Office appropriation requests.

It is noted in S. 1042, which would permit administrative fee fixing, that fees would be based on the cost of operation of the Patent Office. Such cost would include such things as the research studies of Section 12. Those studies are essential to keep Office practices up to date, but the cost thereof can be quite large as is well known to those having even minimal contact with either Government or private research. Charges of that nature and magnitude should not be imposed upon patent applicants. Fees charged to applicants should be proportioned individually with respect to the particular relevant services.

LICENSES FOR FOREIGN FILING

NJPLA favors Section 184 of S. 2597 which permits the Patent Office to grant a general foreign filing license in selected nonsensitive categories. The present practice where first filing was in the U.S.A. is either to delay for six months after the U.S. filing, at which time an automatic license comes into effect, or to apply for a foreign filing license. If first filing is to be in a foreign country, as is sometimes the case, a foreign filing license must be sought at the outset. In order to protect national security interests, the Patent Office, either during the

six months period or on application, refers cases of possible security interest to the relevant agency for review and advice. Presumably other categories of cases are licensed without such referral. Significant expense and effort for both government and applicant could be saved by a general license established by the Patent Office, which is already aware of categories of invention that it does not refer to other agencies before licensing.

The feasibility of a general license has been questioned in so many words but no reason given that we know of except that other agencies may be involved in some cases. That is not a reason. NJPLA recommends the S. 2597 general license provisions because they could effect a significant cost saving for both the Government and applicants.

PRESUMPTION OF CORRECTNESS

The NJPLA favors the S. 2597 approach of omitting a statement of a presumption of correctness that would place the Patent Office in a different position from other administrative agencies. To this extent S. 1042 Section 147 is opposed. The presumption stated in Section 148 is alleged to be based upon the expertise of Patent Office personnel at various levels of action and supervision, but it is well known that the level of such expertise is no more uniformly sufficient for such a presumption than is the level of any other large group of technically or legally oriented group of people. There is as yet no practical way to determine and evaluate the expert qualifications of Office personnel as one would an expert witness in other proceedings. Thus, the record should be open to full judicial review to the same extent as is the record for any other administrative proceeding.

Section 148 refers to decisions being "in accordance with law," but questions of patentability are governed by provisions of Sections 101, 102, and 103 of the statute. Thus, *every* appeal from the Patent Office involves the question of whether or not it is in accordance with law and Section 148 seems to serve no purpose except to generate nice academic arguments and expenses on appeal as to what questions are reviewable. We therefore recommend that the Patent Office continue to apply the law as carefully as possible without any statutory presumption specially drawn for it.

SUMMARY CLOSING

The six objectives of the President's Commission on the Patent System are widely accepted in this country as valid criteria for evaluating the merit of patent matters. In terms of those objectives we find that some worthwhile changes can be made in the U.S. patent system at the present time, and the most convenient vehicle for those changes is S. 2597. We support the latter bill but would urge before enactment a few changes in the language as previously cited to facilitate Patent Office operations. We also urge amendment to place the bill in the form recommended by the American Bar Association after its 1968 convention and to eliminate provisions for publication before allowance of claims.

The New Jersey Patent Law Association remains ready, willing, and able to assist in the development of additional information that may be needed on this or other matters relating to protection of intellectual property.

THE NEW YORK PATENT LAW ASSOCIATION,
New York, N.Y. March 1, 1968.

HON. JOHN L. McCLELLAN,
Chairman, Subcommittee on Patents, Trademarks and Copyrights, Committee on the Judiciary, U.S. Senate, Washington, D.C.

DEAR SENATOR McCLELLAN: On behalf of the New York Patent Law Association, I request leave to add the following observations to the record hearings before the Subcommittee on Patents, Trademarks and Copyrights of the Senate Judiciary Committee concerning problems which we view as arising with relation to the pending Senate bills, S. 1042 and S. 2597, particularly in the context of the changed views of the Department of Commerce as reflected in the remarks of Commissioner Brenner at the recent hearings before your Committee.

In general, our Association favors the provisions of S. 2597. An exception is that our Association has taken no position with regard to the last sentence of Section 31 of S. 2597. Otherwise, our comments in support of S. 2597 would generally

parallel those which were given in the statement of Edward F. McKie, Jr., Chairman of the Section of Patent, Trademark and Copyright Law of the American Bar Association, at the hearing on January 30, 1968, except as to the principle of interim liability.

We wish first to comment upon the Commissioner's proposals in that portion of his statement regarding priority systems. We recognize that there should be incentive for entry into the patent system, but consider that from a practical standpoint, this is largely achieved under the present laws by reason of the difficulty which an applicant filing after the filing date of the senior party encounters in prevailing in a priority dispute. In recognition of this item of reality, we would favor issuance of a patent on the first filed conflicting (interfering) application, with an interference, if desired, to be provoked by the later filing applicant, if he chose, as provided generally in Section 137 of S. 2597.

However, we are strongly of the belief that the proposal of the Commissioner to limit the benefit of proof of date of invention to a period no earlier than one year prior to an applicant's earliest effective United States filing date is unrealistic and would be detrimental to the overall purpose of the United States patent system. Such a one-year limitation is entirely unrealistic when viewed in terms of complicated or outstanding inventive contributions in the mechanical, chemical or electrical arts. It is our belief that, while a limitation period has aspects of desirability in order to eliminate stale proofs of invention, this period should in no event be less than two years.

In this connection, we suggest that the one-year proposal, as attributed to the American Chemical Society, was made in the context of preliminary application practice and hence, in effect, involved a possible two-year period. In the context of abandonment by the Commissioner of the preliminary application proposal, a two-year period is indicated.

Whether or not this two-year period should be capable of extension by proof of facts showing that a longer period was reasonable under the particular circumstances is a question which remains. While the opportunity to show reasonableness of a longer period would be equitable in a few specific hardship instances, we believe that such a provision would cause the issue of justification for an extended period to be raised in a number of cases not deserving of any extension of time. We fear it would unduly extend proof and rebuttal in many interferences. Therefore, if there were to be any limitation in this regard, we favor a specific limitation, but in no event for a period of less than two years from the first filing date in the United States for benefit of proof of invention.

We note that the Commissioner in his statement indicated that the period of limitation should date from the earliest effective United States filing date, which he defined in the case of a foreign applicant, as that applicant's Convention filing date. With this we disagree. It is our view that, if an incentive for entry into the patent system is desirable, that incentive should be for entry into the United States patent system and therefore consider that the limitation period should date from the first effective filing of a patent application in the United States.

We believe that publication before issuance should be eliminated and that in its place a reexamination procedure, which might be initiated within one year of the date of issuance of a patent, should be substituted. We would favor retention of publication on request (Section 123 of S. 2597).

This leaves the question of whether in the case of an interference the application of the junior party should be published or in the case of appeal the appealed application should be published. While we do not express an opinion on either of these points at this time, we believe that publication, if any, should be accomplished by issuance of a patent on the claims found allowable to the applicant and not subject to interference or appeal.

We are strongly of the belief that the principle of interim liability as to claims which have not been granted or allowed to an applicant, however attractive from the standpoint of the applicant, would, in its effect on third parties, have a most undesirable and damaging result. Thus we oppose Section 271(f) of S. 2597 and all proposals for interim liability, whether with or without notice of asserted infringement.

We fear that any provision for interim liability might well become an undesirable but effective trade weapon for harassment. Moreover, it would present a dilemma of speculation to third parties in the case of an interference and in the case of appealed claims and would result in building up presently unascertainable contingent liabilities in industry. Also, it would consume a large amount of

time and effort of counsel which often would ultimately turn out to have been unnecessary.

There is considerable question whether one receiving notice of a claim of interim liability could properly bring an action for declaratory judgment. If declaratory judgment does not lie, the opportunities for trade weaponry are enhanced. If a declaratory judgment does lie, then there would be two parallel and largely identical proceedings in two different forums.

It seems to us that the only real justification for interim liability in the context of issuance not publication being the general rule would be with regard only to rights under claims which were allowed by the Patent Office. These involve claims which had been allowed in the junior application but are not subject to the priority dispute and claims of an appealed application which had been allowed. In the case of requested publication, interim liability would not appear to have any justification.

We submit that there is strong reason behind the principle so far accepted in our patent law that there is no liability for infringement of any claim not issued in a patent by the United States Patent Office. We submit that this principle should be strictly followed. Adhering to this basic and salutary principle, we suggest that the problems to which proposals of interim liability have been directed could be solved, within any reasonable requirements of an applicant, by issuance to him of a patent containing those of his claims which the Patent Office had found allowable and not subject to the outcome of an interference. This could be coupled with automatic reissue of his patent upon favorable completion of the interference or a favorable decision on appealed claims to include those claims which were then allowable to him, without the benefit to third parties of intervening rights. Under these circumstances, the initial patent might well also note for the information of third parties those claims which are subject to the outcome of an interference or of an appeal. However, such notation should not carry with it liability or the right to give notices of infringement as to such claims.

In his testimony at the recent hearings held by your Committee, Commissioner Brenner urged that, if priority contests are to be retained, all applicants foreign and domestic be permitted to establish a date of invention by proof of acts in foreign countries. This suggestion, while having aspects of fairness, particularly to foreign applicants, presents, in our opinion, serious problems of trustworthiness and convenience which cannot be ignored. We submit that without adequate conditions which would reasonably guarantee satisfactory solution of these two problems, the suggestion of the Commissioner should not be followed by your Committee at this time. In our view, these problems and availability of solutions to them have not been explored sufficiently to permit of any effective practical suggestions for their solution at this time. Thus, it is our view that the suggestion of the Commissioner is premature and that, if the suggestion is deemed worthy of further consideration, it should be handled as a separate matter for study and should not be incorporated in a bill reported out by your Committee at this time.

We appreciate this opportunity to present our views with regard to the matters discussed above, which are now, by reason of the present views of the Department of Commerce, placed in a somewhat different context than when the legislative proposals were written.

Sincerely,

JOHN T. KELTON, *President.*

THE PHILADELPHIA PATENT LAW ASSOCIATION,
Philadelphia, Pa., January 31, 1968.

Senator JOHN L. McCLELLAN
Senate Office Building,
U.S. Senate, Washington, D.C.

DEAR SENATOR McCLELLAN: We have not received a reply to our letter of December 28, 1967, and therefore we assume that it will be impossible for us to make an oral statement at the public hearings on Patent Law Revision on January 30, 31, and February 1, 1968. However, we would like to supplement the Statement previously made at the hearings on May 18, 1967.

At the previous hearings, the Philadelphia Patent Law Association included with its Statement a number of Resolutions adopted by the Association including affirmative recommendations with respect to the general revision of the Patent

Laws. The basic principles in many of these Resolutions have now been embodied in S. 2597, the ABA Bill, and S. 2597 overcomes many of the objections which the Philadelphia Patent Law Association had in respect to S. 1042.

At a duly convened meeting on January 11, 1968, the Philadelphia Patent Law Association approved in principle the ABA proposed Bill if revised to include the amendments proposed at the Honolulu Meeting of the ABA. However, this Association believes that such Bill can be further improved by deletion of Section 123. In addition, this Association expresses its disapproval of Section 136(d) and the final sentence of Section 31. A true copy of a formal Resolution to this effect adopted by the Philadelphia Patent Law Association on January 11, 1968, is attached hereto.

Respectfully,

ROBERT B. WASHBURN,
President.

RESOLUTION ADOPTED WITH RESPECT TO S. 2597 AND H.R. 13951. JANUARY 11, 1968

Resolved: The Philadelphia Patent Law Association approves in principle the ABA proposed Bill if revised to include the amendments proposed at the Honolulu meeting of the ABA, a copy of such amendments appended hereto. However, this association believes that such Bill can be further improved by deletion of Section 123. In addition this association expresses its disapproval of Section 136(d) and the final sentence of Section 31.

NOTE.—For amendments referred to see Hearings "Patent Law Revision" Part I May 17 and 18, 1968 before the Senate Subcommittee on Patents, Trademarks and Copyrights, pp. 72-75.

JOSEPH ROSSMAN,
Philadelphia Pa., February 19, 1968.

Re patent law revision hearings.

Hon. JOHN L. MCCELLAN,
U.S. Senate,
Washington, D.C.

DEAR SENATOR MCCELLAN: In reference to the hearings which you have held recently for reforming the existing patent law, I should like to call your attention to one vital matter which has been completely overlooked by the President's Commission on the Patent System, as well as by all the witnesses who have testified so far. This is the very urgent need for reforming the existing practice of drafting the claims of a patent. I was a patent examiner in the Patent Office from 1923 to 1935, and since 1935 I have been in active private practice as patent attorney for large corporations as well as solo inventors. I have also published several books and many articles relating to patent law and the problems of inventors.

I have given a great deal thought to the problem of how our present claim system should be reformed. My attached article published in the *Journal of the Patent Office Society*, May 1963, fully sets forth the reasons for the urgent need for reforming our present claim practice and gives specific recommendations on page 377 for amending Section 112 and Section 284 of Title 35 which I urge that you consider along with other suggestions that are now being made, and suggest that you reproduce it in the record of your hearings.

I call your attention to the fact that all the pending Senate bills now before your Committee starting with S. 1042 include Section 112 in exactly the same language as in existing Section 112 which now reads:

"The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor regards as his invention."

The statutory requirement is certainly simple and clear. It has been in our patent laws since the 1870 Act. But nevertheless thousands of cases in the Patent Office have been adjudicated and published relating to disputes between applicants and Examiners on how the claims should be written. There are several legal treatises relating only to claim drafting. For example, a two volume treatise by Stringham, *Patent Claims Drafting*; Ellis, *Patent Claims*; Jackson, *The Art of Drafting Patent Claims* (1966). Also numerous legal articles and papers have been published discussing specific problems of claim language. I call your attention for example to a paper by Virgil E. Woodcock, Esq., a prominent patent attorney, en-

titled "The Well-Drafted Claim" presented at the first annual Institute on Patent Law in Dallas, Texas and published in *Patent Procurement and Exploitation* (1963). This paper dramatically illustrates the problems of drafting claims for a simple improved orange juicer in order to comply with the current preposterous practice of claim drafting. It also contains a comprehensive bibliography on claim drafting.

I estimate that about half the time and effort in prosecuting patent applications is wasted on useless semantic battles with the Examiner regarding acceptable language in the claims. It is indeed rare that some criticism of claim language does not appear in the first official action on the merits of a patent application. Our present claim practice has become a schizoid semantic system in the Patent Office as well as in infringement cases in the courts. Reforma has been long overdue. By eliminating the present claim practice, I believe Examiners in the Patent Office could easily double their output of examining patent applications and quickly reduce the backlog of 200,000 pending applications because they would spend their efforts in determining the contribution made by the inventor and eliminate the technical battles and arguments, such as for example, whether a hole can be claimed as being present in a plate or vessel; whether an alternative statement can be used, for example a transparent window made of glass or plastic; objections to using apparatus limitations in a process, for example, the step of uniting two soft metal foils by pressing them with a hammer or pressure roller, etc. Such expressions cannot be used in claims today even though they clearly and simply point out the essential features referred to. In chemical applications, the claim practice has become a frightful mess. We have endless arguments about so-called Markush type claims; claims broader than the invention; product defined by process; fine distinctions between the words "comprising" and "consisting", etc.

In my opinion, the present claim practice has developed by a slow insidious growth to produce a semantic monstrosity which defeats the simple requirement of our patent law that the application should *point out* and *distinctly claim* the subject matter which he regards as his invention. The applicant should be permitted to do this in any simple, succinct and understandable language and without having to submit to wasteful verbal duels with the Examiner. As a matter of fact, the Commissioner of Patents could chop away the existing semantic jungle growth by administrative action, but perhaps this has existed so long that legislative action is now the only remedy, especially so that the Courts would also have a clear mandate in a revised Sec. 284. By the same token, the Courts should also not invalidate or hold unenforceable any claim on account of the language used in a claim provided it is understandable and distinguishes the invention from the prior art.

I might add that at present there is a special subcommittee of the Patent Section of the American Bar Association which is now working on the problem of claim reform under the chairmanship of Joseph G. Jackson, Esq., a prominent patent attorney. He has informed me that this report has not yet been finally approved but that most members of the committee favor a revision of Sec. 284 along the lines suggested in my paper which would read as follows:

"In determining questions of infringement and validity of the patent the court shall construe the claims of the patent to have such valid scope, consistent with the disclosure and intentment of the claims notwithstanding their literal language, as to adequately compensate the patentee for the inventive contribution to the advancement of the useful arts and to the extent which the infringer has used same to his advantage, provided, however, no practice which was obvious from the prior art to a man of ordinary skill in the art to which the invention relates shall be held to constitute infringement of a patent."

I regard the adoption of such revised Section 284 as very desirable and urge that this should be done by your committee.

If Sections 112 and 284 were revised as here suggested, the examination of patent applications would be tremendously expedited in the Patent Office and the courts would be relieved of the difficult task of interpreting claim language in infringement cases. Judge Johnson said in the case of *In re Hayes*, 84 USPQ 245,

"It is true that the drafting of patent specifications and claims is fraught with the peril of understatement, overstatement, and ambiguity. A patentee may perchance disclose less than his real invention, or while describing his invention, do so with such attendant ambiguity that his coverage is attrophied by uncertainty of interpretation in eventuating court contests. Or, having disclosed precisely

his real invention, the patentee may fail to claim it with sufficient breadth to reserve unto himself the exclusive use of his real contribution to the art."

Judge Learned Hand said in the case of *Gibbs v. Triumph*, 26 F(2d) 312:

"Courts do indeed treat the language of claims plastically, now trying to save the whole scope of the invention, now squeezing to limit the claim so that it can survive."

In the case of *Doble Engineering Co. v. Leeds & Northrup Co.*, 56 USPQ 432, Judge Woodbury in referring to the difficulty in construing claims said:

"* * * the courts over the years have formulated a great number of minor rules or canons of construction applicable to patents only. Possibly the courts, as non-expert tribunals felt inadequate to definitely and finally decide the question of the meaning of such highly technical document as a patent, many of which are extremely difficult if not impossible to understand by one not versed in the arts to which they appertain, and hoped by formulating these minor rules to provide definite guides to meaning for themselves and others to follow in the future. If this was the hope it seems to us that it has not been realized but that on the contrary these numerous overlapping and sometimes conflicting canons of construction and the exceptions thereto *shed only an illusion of light* upon, and so only add confusion to, the exceedingly difficult question of the meaning of a patent."

A host of difficulties would be eliminated under revised Section 284 because the courts would then have to determine just what technological contribution the inventor has made in his field and the courts would simply determine to what extent an infringer has appropriated and profited from such contribution. In other words, justice would be done on the basis of equity and not the basis of the semantic dexterity of attorneys.

Our present claim practice is essentially based on the "peripheral" definition of the contribution made by the inventor as opposed to the "central" definition. These types are explained in my paper. The majority of European patent systems follow the "central" claim approach. To the extent that we would modify our claim system toward the "central" type of claims, greater international conformity of patent systems would be achieved. This is one of the objectives of the President's Patent Commission.

I would appreciate it very much, Senator, if you would incorporate these comments and my attached article in the record of the recent hearings for consideration by your committee.

Very truly yours,

JOSEPH ROSSMAN.

PATENT CLAIM PRACTICE NEEDS OVERHAULING

(By Joseph Rossman¹)

The paper by Mr. John A. Dienger "Simplifying the Examination of U.S. Patent Applications" which appears in the February 1963 *JOURNAL* points to the urgent necessity of reforming our obsolete claim system. A radical overhauling of our existing claim practice will simplify the examination of patent applications and clear up the existing log jam of pending applications in the Patent Office. In my opinion, an early solution to this problem is urgently needed to ensure the survival of our patent system. The question of claim reform was raised nearly forty years ago and has been discussed in the pages of this *JOURNAL*, but no decisive action has been taken by the Commissioner of Patents, the patent bar or the Congress. In view of the almost hopeless existing backlog in the Patent Office, the lack of adequate experienced personnel and the overwhelming flood of technical literature which, for example, is doubling in volume every eight years in the chemical field, decisive action must not be delayed any longer.

Mr. Dienger suggests that the theory of claiming the invention should be changed to pinpoint the inventive concept by a single main "subjective" claim which would define the inventive concept as "the doing of a certain thing in a certain way or by a certain means." He believes that claiming the objective details of the physical structure is a luxury which we can no longer afford. However, he would permit an applicant to add dependent claims "objectively stated, i.e. defining specific means or mode of operation in carrying out the inventive concept. He believes that the combination theory of claiming is an unreliable way of defining an invention because the physical features of the embodiment are thus

¹ Patent attorney, Philadelphia, Pa.

emphasized. He would eliminate from examination of claims by the Patent Office the questions of scope and doctrine of equivalents, which could be established by the Courts since very few patents reach the Courts. Unfortunately, Mr. Dienner did not consider how questions of infringement and scope could be determined by persons or companies who would be desirous of avoiding infringement of such "subjective" claims. This problem must be faced and is crucial to any claim reform because a vital function of a patent is not only to disclose the invention but also to clearly point out what is forbidden territory so that no member of the public is innocently trapped into infringement liability.

Any attempt to reform our existing claim structure must consider the long historical evolution of our present form of claims and relevant court decisions. The existing claim structure has evolved to its present form on the basis of unstated premises which may be fallacious, for example: that it is possible to define an invention by words or symbols; that the sole function of a claim is to define the forbidden technological territory belonging exclusively to the patentee; that it is possible to precisely define all the novel features of an invention before all its possibilities are explored or understood.

Ellis on Patent Claims (1949) traces the evolution of the present form of claims in Chapter 1.² He points out that Sec. 6 of the 1836 Act required that the applicant "shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery." The Act of 1870 changed Sec. 6 to read that the inventor "shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery." Present Sec. 112 of Title 35 reads:

"The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."

It will be seen that this is substantially the same requirement for claims as in the 1870 Act.

Ellis notes that the pointing out of the novel features under the 1836 Act was a "central" definition which is used in present German practice, while the present system of claim drafting and interpretation is based on the "peripheral" definition of an invention. He states:

"There are two general methods of defining an invention—central definition and peripheral definition. Central definition involves the drafting of a narrow claim setting forth a typical embodiment coupled with broad interpretation by the courts to include all equivalent constructions. Peripheral definition involves marking out the periphery or boundary of the area covered by the claims and holding as infringements only such constructions as lie within that area.

"The original method used in this country was central definition. Thus, the requirement of the Act of 1836 that an inventor shall '*point out*' the part, etc. Which he claims as his invention or discovery seems to have been interpreted as requiring the inventor to point a finger, so to speak, at the novel parts of the machine described in the specification and illustrated in the drawings, as one would in pointing out the salient features of a landscape. It was not until after the passage of the 1870 Act that claims were drawn so as to define the novel features by metes and bounds, like a piece of real estate or a mining claim. (Sec. 4).

"The present system of claim drafting and interpretation is based practically entirely on peripheral definition. Under that system, the general rule is that, in regard to infringement at least, claims may be contracted but not expanded. (Sec. 9.)

"With central definition, if the typical embodiment claimed specifically is patentable, anything meeting its limited terms must of necessity be substantially a Chinese copy and hence an infringement. The only question, therefore, after determining the issue of patentability in the affirmative, is: Should the definition be *expanded* to cover the alleged infringement?

"With peripheral definition the question is: Has the inventor defined the metes and bounds too broadly?

"With central definition the doctrine of equivalents is used to expand a claim beyond its literal terms. With peripheral definition the doctrine of equivalents is used to determine whether or not the claim literally interpreted is too broad, i.e. whether in his desire to cover all modifications of *his* invention the inventor has not included subsequent *independent* inventions of *others*. (Sec. 8).

² Also see Brumbaugh, History and Purpose of Claims in U.S. Patent Law, 14 JPOS 273, 426 (1932).

"Under the central definition method, if an inventor points out in his claim a roller press A as the novel feature of his invention, the courts have to consider whether the claim should be *broadened* to include a plunger press on the ground that a plunger press is the equivalent of the roller press illustrated in the drawings and described in the specification.

"Under the peripheral definition method, if the inventor claims 'means for compressing,' there is no need to apply the doctrine of equivalents to make the claim read on a plunger press. The doctrine of equivalents is used only to determine whether the claim should be so *restricted* that it does not cover a plunger press on the ground that a claim can validly cover only what the inventor discloses and equivalents thereof.

"As anything 'which is not literally within the scope of the claim does not infringe,' the doctrine of equivalents cannot extend the claim boundaries. It is used merely to determine whether the alleged infringing structure is the equivalent of the structure shown in the patent drawings and described in the specification. Hence, for a decree of infringement under the peripheral system there are two prerequisites:

"(1) The claim must read in terms on the alleged infringing structure.

"(2) The alleged infringing structure must be the equivalent of that disclosed by the patentee.

"Therefore, under the modern U.S. court decisions, the application of the doctrine of equivalents may render the claim either co-extensive with its terms or *narrower*. It never broadens the claim." (Sec. 10).

For further discussions comparing central and peripheral claims see Stringham, "Outline of Patent Law" (1937) Sec. 500-5980. In Vol. 1 of Stringham "Patent Claims" (1939) the author states he hopes "that this book is a good enough job so that it will accelerate the forces leading to its own destruction."

It appears that Mr. Dienner is suggesting that we go back to the central type of claims as they existed under the 1836 Act. The central type of claim will clear up the log jam in the Patent Office very quickly, but what will happen outside the Patent Office, as regards enforcement of patent rights against infringers and licensing of patent rights under the central type of claims?

The designation that Mr. Dienner gives to his proposed type of claim as being "subjective" is, in my opinion, unfortunate. There is no reason why a central claim cannot be stated in such language as to make it possible to ascertain what *contribution* the patentee has made, by objective evaluation of all pertinent factors such as at present underlies present Sec. 103 as to the test for obviousness. The judgment as to what constitutes a contribution to the art is substantially subjective, but the claim itself need not necessarily be subjective. Mr. Dienner also says that "the combination theory of claiming is an unreliable way of defining an invention because it over-emphasizes physical features of the embodiment, which may be incidental rather than essential." I do not agree with this approach because inherently no invention can be made except by creating a new combination of old elements, not in the sense of a collection of say old mechanical elements, but in the sense of a new pattern of functional relationship. For example the discovery of a new use of an old compound to cure cancer can be considered the discovery of a new combination or relationship. So one must perforce refer to the new pattern, relationship or combination in pointing out an invention.

Richard Eyre, an eminent patent attorney in his day stated nearly 40 years ago in the February 1924 JOURNAL:

"Experienced patent lawyers will seldom differ on questions of invention and infringement, provided that their opinions are based only upon (a) The facts as to the new structure, (b) The nearest actual practices of the art at the time of invention, and (c) The facts as to the actual structure made by the competitor.

"Discordance reigns, however, as soon as three factors, involved in every patent suit, are taken into consideration. These are—

"1. The disclosures of prior patents and publications, none of which is in itself an anticipation;

"2. The equities,—commercial use, etc., and

"3. The patentee's definition of his invention in his claims.

"The theory for the requirement of a claim that is a definition and not a mere pointing out is that it enables one to know by mere examination of the patent how to avoid infringement, without study of the prior art, perhaps without legal advice, and also that it makes the examination in the Patent Office easier and more certain. The theory has not worked out; it now leads to much greater un-

certainly and complexity, instead of to certainty and simplicity. It has caused the Examiner to subordinate words to things; it has caused the Judges to treat words according to the complex facts of the case, modified by complicated principles of claim construction and by their own personal tendencies. Some judges have great powers of analysis and trust their own conclusions thus formed; some see above all the historical facts of the case; some seek to render consistent and apply the hopelessly variant decisions as to construing claims; some look at the claim primarily, some almost ignore it.

The solution seems to be to rid the patent law, as now construed, of the fictions which have been engrafted upon it. One fiction is that arising from the doctrine that inventors have constructive notice of all the millions of patents and publications, each of which is, therefore, in and of itself, a part of the state of the particular art to which it relates. Another fiction is that the scope of the invention is defined by the claim, and that the patentee is strictly bound by it. Substitute for these fictions the real facts. Gauge the inventiveness of anything that is novel by comparing that thing with what was being actually practiced in the art at the time the invention was made. Permit the patentee to point out by his claims, without defining, the improvement he seeks to protect. Ascertain infringement by determining whether there is common to the claimed part of the described structure, or to the claimed composition of matter or process, or step in a process or product, something new and something requiring invention over the actual existing practices of the art. In a patent suit we do all this now, but we superimpose upon this method the two fictitious methods herein discussed, and as these fictitious methods nearly always tend to defeat patents for meritorious inventions, we seek to nullify their destructiveness by the collateral evidence relating to the equities and by artificialities of claim construction. The result is that by introducing two double negatives into the situation, it frequently happens that a right conclusion is reached, but such a conclusion ought to be almost invariable. Justice cannot be obtained with any degree of certainty if we must seek it by reaching one set of conclusions through correct mental analysis based upon a fictitious state of facts and then negating those conclusions by collateral evidence or by uncertain methods of interpretation.

"It is time that we abandoned the attempt to do the impossible. Let us *point out* the part or combination or composition, etc., which is the invention, without attempting to define it. This would be a mere reversion to what was done in most cases in the early years of our patent system. Any intelligent solicitor can describe a machine, for example, and how it operates and wherein it is thought to be particularly useful. He can readily point out what parts of the machine are claimed to be new and where, as a whole, the machine is new he can point out that as well."

Perhaps in 1870, when technology was relatively simple and the prior art could be thoroughly searched, it could be assumed that the inventor knew precisely the useful contribution made by his invention and he could therefore claim all the novel features. But today it is extremely difficult to know in advance, at the time when the patent application is filed, the potential or actual scope of an invention. The need to define it in advance by a peripheral definition that will give the inventor a fair compensation for his invention for 17 years, in our present tremendously accelerated tempo of technology, seems to require superhuman prophecy that is unfair to the inventor.

Arthur C. Fraser, another eminent patent attorney, and chairman of the Patent Section of the American Bar Association in 1926, gave advice to the Bar Association which is still sound for our present-day problems. His address appears in the June 1926 issue of this JOURNAL. In regard to claims he concluded:

"To precisely define the exact scope of a patent before its issue is impracticable. At that time usually the invention is untried; it has not yet made any impress on the art and the precise extent of its novelty is unknown. Only an approximate statement of the supposed novelty of the invention ought to be required. Unknown anticipations may be later revealed which will require narrowing this statement, and it should be subject to diminution or more exact rendering by the courts, who deal with the subject in after years when the invention has demonstrated its particular value and the extent of its novelty can be better appraised.

"I entertain no illusion as to the ready adoption of the views herein advocated. They will not appeal to those wedded to our present system. To the ultra-conservative type of mind whatever exists is right. Attorneys who have become skilled in drawing claims according to our present methods will not willingly

see this skill thrown into the discard. A new system of claims will render obsolete much of our accumulated case law on interpretation. Such objections are always opposed to every reform, and if they prevailed would stifle all progress.

"The objection will doubtless be made that the proposed changes would relieve the Patent Office at the cost of throwing an added burden upon our already overburdened federal courts. The readjustment of the work of the courts is insistent, and the amendments herein proposed will affect it to a degree so slight as to be almost negligible. The problem concerning the courts is far more pressing than any reform of the patent laws, and will probably be solved before anything can be finally accomplished in the directions herein advocated.

"The correction in our patent law defects which impair its effective operation should be a concern of our branch of the legal profession. Inventors and manufacturers who suffer from these defects are without the technical knowledge required for their rectification. They are justified in relying on our skill and zeal for their benefit. The reforms herein proposed will diminish the cost of securing patents, and while they will probably not reduce the ultimate aggregate expense, it will be shifted to a period when the inventions have become remunerative, so that the patentees can better afford to pay for necessary legal services.

"That patent system best justifies itself which secures to the inventor a patent which effectually protects what is novel in his invention—which ensures the prompt issue of patents in simple and comprehensible form—which avoids serious expense until the inventions have proved their merit, which attains early publicity for the guidance of business adventures—and which stabilizes patents as property by guarding against their voidance on merely technical grounds." (Italics in original).

In 1930 Mr. Fraser was still persistent in urging claim reform and submitted a Memorandum to the subcommittee of the Patent Section of the American Bar Association which is highly pertinent today and is being reprinted here because it is not readily available.

"PROPOSED STATUTORY CHANGES

"Sec. 4888³ to be amended as follows:

"Sec. 4888. Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written specification which shall contain a description of the invention and of the best known manner of making, compounding, using and practicing it, in such full, clear, and exact terms as to enable any person skilled in the art to which it pertains or is most nearly related to understand it and to successfully make, compound, use and practice it.

"Included in the specification shall be a statement, hereinafter called the claim, of what the inventor claims or believes to be new, so as to distinguish from what was old. There may be as many claims as there are features of supposed novelty; and if desired, any such feature may be expressed in both a generic and specific claim. The claim or claims need not define the features claimed to be new, nor limit the scope of their novelty, but shall clearly indicate the nature of the supposedly new features, parts, combinations, processes, steps, products, or improvements constituting or included within the invention; and need refer to old features only so far as is necessary to make clear what is claimed as new. Alternative and negative expressions may be used to reduce the number of claims, when not involving obscurity. When two or three alternative species of a generically new invention are disclosed, separate claims may be made to each and all thereof in one application.

To ensure the just interpretation of claims, and to guide the Courts and secure approximate uniformity of interpretation, the following should be added to the existing statute:

"Sec. ——. *Interpretation of Patents.* Patents shall be construed and enforced according to the following principles:

"(a) When it appears that a new invention is set forth and claimed in a patent, the patent shall be given such scope as to cover and protect such invention in so far as the same is not inconsistent with its specification and claims.

³ This section of the Revised Statutes corresponds to present secs. 111 and 112 of title 35.

"(b) When the patented invention is of pioneer novelty, the patent shall be given the broadest scope consistent with its specification and claims.

"(c) When the patented invention is an improvement upon earlier inventions, the patent shall be given such scope as to cover and protect the contribution which its inventor has made to the advancement of the art, in so far as the same is not inconsistent with its specification and claims.

"(d) The specification of a patent shall be construed as addressed to those skilled in the art to which the invention belongs or to which it most nearly relates.

"(e) The claims of a patent shall be construed liberally rather than literally, and in such manner as to best secure to the patentee that which he created or contributed for the advancement of a useful art.

"(f) When the degree of novelty of the patented invention permits, the claims of the patent are to be construed as including equivalents of the specific things recited: the range of equivalents thus included will vary with the extent of novelty of the invention.

"(g) Infringement of a claim will be avoided by the mere omission of unessential element of such claim if the essential features of the invention claimed are included in the defendant's device or method alleged to infringe.

"(h) A claim will not be held void solely because it indicates a greater degree of novelty than the proven prior art warrants, if it can be validated by interpreting it to be limited to one or more specific features set forth in the specification, or by disclaimer.

"(i) A generic claim and a claim specific thereto shall be construed to-

"(i) A generic claim and a claim specific thereto shall be construed together as covering everything of intermediate scope which is set forth in the specification.

"(j) A claim appurtenant to a preceding claim shall be construed as if recited in all of such preceding claim; and its validity shall not be affected by the validity or invalidity of such preceding claim.

"REMARKS

"In my opinion neither the German form of claim following the 'central definition' plan nor the American form drawn according to the 'peripheral definition' is practically feasible. The underlying difficulty is that claims are drawn almost invariably at a time when neither the inventor nor his attorney can possibly know how much is new. They are groping largely in uncharted country; the situation is similar to that confronting an explorer of new territory if he were asked to set it out by metes and bounds. After that territory has been surveyed, put under cultivation and built upon, the claims of individual owners can be definitely staked out and defined. But an applicant for patent is expected to stake out and define his claim before he can possibly know his territory.

The plan according to our early statutes is the true American plan and the one that we should have adhered to. The inventor is required to 'particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery.' He is not required to *define* the bounds of his monopoly. He must set forth distinctly what he *claims* as his invention. In other words his claim was a statement of belief as to what was new.

"This system operated very well until the courts began to impose ultra-statutory requirements upon patentees. This culminated in the opinion of Justice Bradley in *White v. Dunbar*, 119 U.S. 47, in which he held that the statute requires the claim 'for the very purpose of making the patentee *define precisely* what his invention is. This was clearly judge-made law and wholly unwarranted by the statute. It has been followed ever since by the courts and lies at the root of our difficulties today in the framing and interpretation of claims.

"What we need to do is to re-frame the statute so as to make more clear what is required of the inventor and so as to instruct the courts precisely as to how they are to interpret patents.

"Any competent patent lawyer in passing upon a patent inquires first what was the position of the invention in the art. Having determined that, he examines the claims in the effort to so interpret them as to make them mean what the patentee meant or should have intended to mean in drawing his claims. The first rule in the interpretation of claims is to give them, as far as their language permits, such scope as to give the patentee the benefit of that which he actually invented and which constituted a novel contribution to the art. The courts should follow the same procedure and be guided by the same principles.

"I do not overlook the desirability of making claims definite enough to give the public a fair idea of the ground monopolized by the patentee. But for this purpose our complicated system of numerous claims which are usually inscrutable to the layman, and often to patent lawyers as well, is inadequate. The claims which years ago pointed out what the patentee thought his invention was, have now degenerated into a mass of verbiage wherein the old and the new features are inextricably commingled, and the meaning of which is so obscure that public generally can make nothing out of it.

"It must appear to patentees and manufacturers that our present complicated system has been built up by patent lawyers with the object of making patents so inscrutable that only a patent lawyer can understand them. This, for our profession, would have been the poorest imaginable policy. But the truth is that the complications we face today are the fruit of dicta in judicial opinions which were just enough in the cases the judges were considering, but should never have been given a wider application. To properly protect our clients we are compelled to frame a multiplicity of subtly graduated claims; and this adds to the burdens of the Patent Office and the future confusion of the public and the courts. The system under which we are compelled to work is fundamentally wrong. Only a radical change in the statute can correct it.

"It is an important part of my proposed new system that the Patent Office shall be made primarily a searching bureau. The Examiners would be relieved of their present duty of minutely examining claims as to their scope; and would be deprived of their present power to reject claims on the ground of non-invention. The Examiner would prepare a report stating the prior art and giving his opinion as to whether the claims contained novel matter; this report would be signed by him and printed with the patent. This would afford to the public the fundamental information required for ascertaining the proper scope of the patent. To prevent the issue of patents for things which are wholly old the Examiner would retain his present power to reject such claims, but limited to cases where the claimed matter is met or so nearly met as to be clearly obvious to those skilled in the art. From rejection on this ground the present appeal would lie. The whole purpose is to lighten the work of the Patent Office and hasten the issuance of patents. To make it to the applicant's interests to cooperate to this end, his patent should be made to expire at a certain date (preferably 20 years) from the filing of his application.

"The ultimate determination of the validity and scope of the patent would rest, as it does now, with the courts. The only effect of the Patent Office action would be to create a presumption which would be effective only on motions for preliminary injunctions under unadjudicated patents. As to such motions, the Examiner's opinion that a claim was not novel or involved no invention, would deter the court from enjoining a defendant until after final hearing."

Mr. Fraser explained in greater detail how the central type of claim would work. His comments appeared in the June 1926 issue of this JOURNAL.

"Let the application be referred to an examiner who, after determining, as at present, whether it has all the formal essentials, such as a clear and complete description, will then perform his principal duty, namely, to make such a thorough search as to develop all pertinent prior art. Let him write a Report, citing all patents or publications which defeat or diminish the supposed novelty indicated in the applicant's claims and stating his opinion as to what new features, if any, the invention has. Let the applicant then restate, if he wishes, the claim of novelty, and if he introduces new or specific features so as to distinguish from the examiner's citations, let the examiner supplement or modify his Report. Thereupon, if the Report indicates that the invention has any novelty, let the application be accepted, so that the applicant may have his patent issued in due course. When issued, the examiner's Report in its final form, should be printed with the specification. The public will thus be apprised on the one hand of the inventor's claim of supposed novelty, and on the other hand of the complete prior art and the examiner's opinion as to what the patentee's invention added to the art. These counter statements will give the public and the courts a better idea of what the patent covers than our present obscure and often unintelligible claims.

"If the examiner's report shows the claimed invention to be wholly old, the application should be rejected, as at present, and the applicant be given one opportunity by argument or otherwise to convince the examiner that he is entitled to a patent. If the rejection is repeated an appeal would lie. But a rejection should not be based on any other ground than total want of novelty, or that any difference over the prior art was clearly obvious. Any doubt as to obviousness should

be resolved in the applicant's favor, because the grant of a patent is a mere license to go into court against infringers, and without a patent the inventor is denied his day in court.

"Instead of the present dilatory struggle between the applicant's attorney and the examiner, let the patent be promptly issued in such form as to give the public the best possible information and the patentee a fair chance to be accorded protection commensurate with what he has created.

"This procedure would encourage invention by hastening the issue of patents and reducing their cost; it would thus put the inventor quickly in position to do business; it would promptly advise manufacturers as to what new patents must be considered and would give them a better idea than they can get from the present system of claims as to what those patents cover; and because of greater clearness and certainty would make patents a more secure and stable kind of property."

Under our present system a claim is either valid or invalid. The claims are adjudged to be either pure white or black. An English patent attorney, Harold E. Potts, made an excellent analysis of this feature in British and American patent law in his paper "Invention and Graduated Validity" in the September 1942 JOURNAL.

"There are three possible views on the distinction between inventions and mere improvements:—

"(i) The classical British and American doctrine, that there is a difference in kind rather than in degree.

(ii) The German doctrine, that invention is indefinable in theory but that the concept is useful in practice.

(iii) The contention that there is no sharp boundary line and that the concept of validity should be modified by legislation, to take account of this lack of discontinuity.

"But the Germans appear to accept the proposition that invention is indefinable but not the corollary that it is undesirable to base the decision in a law suit upon an indefinable concept. In practice it is assumed that an equitable decision can be reached in any particular case under trial.

"I now support the contention that invention is not an entity capable of clear-cut definition, and that although a great invention is obviously very different from a work-shop improvement, the boundary is so hard to determine that it is unfair to make validity depend on such an elusive distinction.

"There is no apparent reason why there should not be a gradation in the evaluation of inventions of different degrees of merit. This ought not to be regarded as a clear question of right or wrong, of lawful or unlawful conduct, but of different degrees of advance in the art, properly rewarded by royalties or damages commensurate with the merits of the contribution.

"I suggest that in patent cases we should admit that it is unfair to limit the verdict to 100 per cent. (valid) or 0 per cent. (invalid). Validity is a matter of convention, which can be modified by Statute if necessary; the practical solution of the problem would be to provide that validity should be graduated or quantified, with a correlative adjustment in the legal remedy of damages or royalties and discretion as to costs. Full damages and an injunction in a clear case of validity; no relief in a clear case of invalidity; but mitigated damages . . . in the borderline case. This is an expansion of the discretionary power which the Court already possesses to give relief on a valid claim in spite of the presence of invalid claims. Another precedent for modifying an all-or-none verdict by judicial discretion is to be found in divorce practice.

"This may be summarized by saying that instead of the all-or-none verdict, valid or invalid, we should create an intermediate class of awards, especially for border-line cases, in which the relief given by the Court would be in proportion to the merit of the contribution to the art. A similar graduated verdict could be applied to the issue of infringement in the limited class of border-line cases in which it is necessary today to invoke the doctrine of equivalents.

"The practical working of this proposal would require a radical yet very simple change in the law. The Court should be left free to give verdicts of valid or invalid as at present, but should be given discretion in border-line cases. No change would be necessary at the Patent Office, here or abroad. The power of refusal should still be retained."

By adopting the central type of claim, the present judicial black and white norm would disappear and would be replaced by a *quantum meruit* judgment based on the contribution made by the inventor which the infringer uses to his advantage.

Our present Patent Office leaders are exerting heroic efforts to continue the operation of the Patent Office by reorganizing the staff, testing out machine searching, training new examiners, offering incentives to keep experienced examiners from resigning, etc., but unfortunately their efforts are hampered by our present monstrous claim system which is archaic, obsolete and actually frustrates rather than promotes the constitutional purpose of patents.

I suggest that a revision of Sections 112 and 284 of present Title 35 would accomplish the necessary claim reform that is needed. Such revision would embody some of the suggestions previously referred to.

Amend Sec. 112, 2nd paragraph, to read:

"The specification shall conclude with one or more claims in the form of a simple, concise, and direct statement, pointing out the novel features of the invention which the applicant believes to be his contribution to the advancement of the useful arts."

Amend Sec. 284 by adding the following additional paragraph:

"In determining questions of infringement and validity of the patent the court shall construe the claims of the patent to have such scope, consistent with the disclosure, as to adequately compensate the inventor for his contribution to the advancement of the useful arts and to the extent which the infringer has used same to his advantage."

Under the present claim system, which is based on the peripheral definition, we do not have the certainty of definition which would avoid the need for claim interpretation and construction in order to determine the scope of the claims or questions of infringement. In actual practice, before a patent attorney can render an opinion to his client regarding a question of infringement in regard to a specific patent, he must study the file history, the prior art, the patent disclosure, the device in question, and pertinent court decisions, before he reaches his conclusions. Even then his client in acting on the attorney's opinion must take a calculated risk since the outcome in event of litigation cannot be predicted positively.

Stringham, "Outline of Patent Law," (1937) Sec. 5001, states patent claims "are mainly concerned with staking out a boundary around instances yet to be created in the future * * * The patent claim is the same as all definitions in law—it is concerned with prediction rather than with arrangement of what already known." In his book "Patent Law," (1943) Sec. 5900 he concludes that "the claim ought to be binding in the sense that language is binding in other human relationships" and that the Patent Office "ought not to engage in prolonged attempts to impose perfection upon applicants, but rather should trust the courts to handle intelligently what seem to be formalistic matters." And in Sec. 5000, he states "So that a patentee's right may be of value, the patent must dominate more than exactly what is disclosed." His review of court decisions involving scope, width, range or equivalents indicates that "the question is left wholly open to be decided by the tribunal as a matter of discretion controlled by no guide, each time a controversy arises. * * * This high measure of uncertainty is inevitable with various types of human relationship." Stringham cites many court decisions showing that many judges are unhampered by claim language. (See Sec. 5700, and other cases cited in Secs. 5930-5980). He is particularly unhappy with Judge Learned Hand's approach to patent claims which he summarizes in Sec. 5700, although he is otherwise a great admirer of Judge Hand. In *Cole v. Malleable Iron Fittings Co.*, 21 USPQ 501, at 502 Judge Learned Hand said: "No doubt the interpretation of patent claims depends more upon the advance made by the invention than upon the words used and in spite of protestations to the contrary, courts do at times play fast and loose with them as they do not with other formal documents." A paper by H. C. Workman, "The Uselessness of Claims" in the September 1934 *Journal* summarizes additional decisions. The benign judicial approach to claim construction and the doctrine of equivalents⁴ to which courts resort in order to do justice in patent cases are strong evidence that the use of peripheral type of claim in our present day level of technology hinders rather than promotes the Constitutional objective of patents. The suggested amendments to Secs. 112 and 284 would allow

⁴In *Graver Tank & Manufacturing Co. v. Linde Air Products Co.*, 339 U.S. 605 (1950), the Supreme Court reaffirmed the doctrine of equivalents as necessary to prevent "an infringer from stealing the benefit of an invention." Otherwise, the Court said we "would place the inventor at the mercy of verbalism and would be subordinating substance to form. It would deprive him of the benefit of his invention and would foster concealment rather than disclosure of inventions, which is one of the primary purposes of the patent system."

the Patent Office and the courts to consider the merits of the invention rather than the formalism and semantics of the claim language.

One serious objection which has been made against adoption of the "central" type of claim is that court litigation would increase greatly and that the individual inventor or small company could not bear the heavy expenses involved. The argument has also been made that it is much cheaper to define the scope and breadth of claims in the Patent Office than it would be to do the same thing by court adjudication. Such consequences may possibly be the price which has to be paid for the needed reforms. At present only a very small percentage of patents are litigated. There is no reason to believe that the volume of court litigation would increase to the point where the advantages of "central" type of claims would be lost. As a safeguard, Section 285 could be amended to provide that in all cases where infringement is found the court shall award to the prevailing party reasonable attorney fees together with interest and costs.

BROWNE, SCHUYLER, BEVERIDGE,
Washington, D.C., November 29, 1967.

Re S. 2597 (Dirksen).

THOMAS C. BRENNAN, Esq.,
Counsel, Subcommittee on Patents, Trademarks, and Copyrights, Committee on the Judiciary, U.S. Senate, Washington, D.C.

DEAR TOM: As I mentioned to you a few weeks ago, the Dirksen Bill (S. 2597) may be criticized because it authorizes the issuance of separate patents to any number of different applicants for the same invention. In addition to the applicant who is the first to file an application, a patent for the same invention will be issued to any other applicant who establishes a date of invention before the filing date of an earlier applicant. This same situation continues under the later draft of the ABA Bill as revised at the Hawaii Meeting.

Speaking solely as an individual, not as a representative of any bar association, I suggest this situation may be rectified by adding to the definition of prior art in Section 100 a subparagraph reading as follows:

"Subject matter defined by an uncancelled claim of an issued United States patent, the application for which has an effective filing date before the effective filing date of the applicant's application."

This can be added either to the definition in the Dirksen Bill (S. 2597) or to the revised Section 100 which was adopted by the Patent Section of ABA at the Hawaii Meeting. It will force a later applicant, but earlier inventor, to take action under Section 136(d) to prevent issuance of a patent to the earlier applicant, or under Section 137 to cancel the claim from a patent which has already issued.

Addition of this subparagraph to the definition of prior art would likewise be consistent with the Yarborough Bill (S. 2164) which would issue the patent to the junior applicant conditionally, pending cancellation of claims from the patent of the earlier applicant.

I shall be more than glad to discuss these matters with you, should you wish to do so.

Sincerely,

WILLIAM E. SCHUYLER, Jr.

SMITH, KLINE & FRENCH LABORATORIES,
Philadelphia, Pa., February 29, 1968.

Re hearings on legislation to reform the patent law.

HON. JOHN L. MCCLELLAN,
Committee on the Judiciary, Subcommittee on Patents, Trademarks, and Copyrights, U.S. Senate, Washington, D.C.

DEAR SENATOR MCCLELLAN: I would like to call the attention of the Subcommittee to two points of difference between S. 1042 (The Patent Reform Bill) and S. 2597 (The American Bar Association Bill) which are of vital interest to the research community and which have not been discussed in the recent Congressional hearings.

My comments are drawn from five years' experience in academic research, six years in industrial research and ten years in patent solicitation. I am the inventor of 12 U.S. and over 75 foreign patents. I am presently manager of the Patent Department of Smith Kline & French Laboratories, Philadelphia, Penna.

DEFINITION OF UTILITY UNDER SECTION 101

The Patent Reform Bill essentially retains the language of the present Patent Act for Section 101.

"§ 101. Right to patent: Inventions patentable.

Whoever invents or discovers any *new and useful* process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, or his successor in title, may obtain a patent therefor, subject to the conditions and requirements of this title." emphasis added

The ABA Bill also has identical language for Section 101 but amplified the meaning of 101 by defining "useful" for the first time in law:

"§ 100(g) The term "useful" shall include, but shall not be limited to, utility in agriculture, commerce, industry, health or research."

It should be emphasized for the record that while each of the terms in the ABA's definition of "useful" defines a broad area of utility, a specific utility for an invention would have to be detailed in a patent application. For example, it would *not* be sufficient to allege the utility of an invention as "for use in agriculture" but a proper statement of utility might be "use as a feed supplement to promote growth in pigs". Therefore, the definition of utility contained in the ABA Bill is believed not intended to dilute or change our traditional concept of utility but merely to clarify the term.

The Patent Office has opposed the ABA definition of the key term "useful" but has suggested no solution to a serious controversy among those involved in patent law (see Crews to Senator Eastland letter re the ABA Bill or Commissioner Brenner's testimony in the House).

The controversy arose when the Supreme Court, in a split vote, decided that substantial utility is present only "where specific benefit exists in currently available form" and, further, that utility for a research purpose does not satisfy this criterion (*Brenner v. Manson*, 148 USPQ 695). The Supreme Court expressed concern over stultifying the research effort of the nation by issuing patents on inventions having utility in research even though recognizing that such inventions may later be applied to beneficial commercial purposes. The Court majority also mentioned its difficulty in adjudging Congressional intent on this point. The Court minority filed a sharp dissent which recognized the fact that patent protection in the research sector is desirable to foster prompt disclosure. The American Patent Law Association in an excellent amicus curiae brief summarized previous law, court decisions and solicitation practices in presenting a position opposite that adopted by the majority. The Patent Office in its day to day practice has interpreted *Manson* as a severe tightening in the requirement of utility.

Prior to *Manson*, the Patent Office and the bar considered a positive research use to be a proper utility to support the patentability of an invention (see *Reichstein v. Brink*, 147 USPQ 118).

My company has had to deny permission to several of our scientists to publish articles on new research developments because no proper patent protection could be obtained. Also, the lack of adequate patent protection on new chemical processes and intermediates was a major factor in our recent decision not to undertake a new business venture.

Here, therefore, is an area where there is controversy within the Supreme Court, between the Supreme Court and the Court of Customs and Patent Appeals as well as between the Patent Office and the patent bar—with many potential inventors being the injured parties. Calls for resolution of this problem in a positive manner by Congress have been recorded by many, for example, L. R. Velvel, JPQS, 49, 5 (1967) and several CCPA judges. Also see "Some Special Problems with the Utility Requirement in Chemical Patents", *The George Washington Law Review*, 35, 809 (1967). The ABA Bill will settle this controversy with its clear definition of utility.

The concern of the Supreme Court for research, expressed in its *Manson* decision, is a specious one. On the practical side I have never heard of an infringement action against a strictly research or experimental use of a patented invention. Since no damages could be proved and such use is usually a one-time or, at most, short-term affair, the benefit of such an infringement action to the patent holder is almost nonexistent. Also case law suggests that experimental or research use alone does not constitute infringement (see page 8 of APLA amicus brief in *Manson*, especially *Chesterfield v. U.S.*, 159 F. Supp. 371).

Research today is our country's biggest business and strongest asset. The patent system should be used to its fullest extent to encourage continued strength in research-oriented industries by means of prompt disclosures and adequate

protection of inventions having utility in research but which may later have commercial application. The Patent Reform Bill will not do this.

If the Committee wishes to insure full use of patented inventions in research, S. 2597 could be so modified by adding another section as follows:

"271(g). Whoever makes or uses a patented invention for research purposes and not in contemplation of commercial use of the invention shall not be liable as an infringer."

This provision would recognize and encode what I believe to be common practice in the research community today.

I suggest that the definition of utility in Section 100(g) of S. 2597 (the ABA Bill) be adopted.

THE INVENTION AND ITS USE

The Patent Reform Bill retains the first paragraph of Section 112 of the present law which reads:

"§ 112. SPECIFICATION OF A COMPLETE APPLICATION

"(a) The specification shall contain a written description of the invention, and of the manner and process of *making and using* it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention." [Emphasis added.]

The ABA Bill modifies this section as follows:

"§ 112. SPECIFICATION

"(a) The specification shall contain a written description of the invention, and of the manner and process of *making it*, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the same, and shall set forth the best mode contemplated by the applicant of carrying out the invention. The *specification shall also indicate the use of said invention.*" [Emphasis added.]

Once again, in an important area from the viewpoint of the inventor the Patent Reform Bill retains controversial language of the present law while the ABA Bill attempts to resolve the conflict.

The Patent Office interprets "making and using" in Section 112 as two distinct requirements, neglecting the historical derivation of the phrase which indicates that the "and" ought be used as an alternative. The article by Harold S. Meyer in 49 JPOS 533 points out the proper connotation of the phrase (see particularly pages 542-3) as well as the practical benefits of such an interpretation to the inventor and to the public. Meyer also presents a scholarly discussion of the important interrelationship of Sections 101 and 112. A distinguished judge of the Court of Customs and Patent Appeals also urged a proper interpretation of the phrase, 145 USPQ 455-6.

Under Section 112 of both bills, the invention must be described with details for making it, constructing it or, if a process, using it. The ABA Bill would also require that the application merely "indicate the use of said invention". On the contrary, the Patent Office (since the Manson decision) has required the description of the use of an invention in a patent application to be explicit enough to bring the invention to a point of practical utility which approximates commercial use. The Patent Reform Bill would continue this policy.

Prior to the Manson decision, an inventor who had, for example, synthesized a new series of chemical compounds having insecticidal activity was able to file a patent application on his invention with the information at hand. Now, however, the inventor should determine the dose parameters of activity, toxicity, susceptible insects, etc., before he files even though his claimed invention is a new series of chemical compounds. Such practice not only delays filing but it places the inventor under a serious burden financially as well as independence on another scientific discipline. This destroys the flexibility in our patent law which at one time was one of its strongest advantages. A fascinating viewpoint of the practical difficulties of this problem by a distinguished American inventor was presented in *The Chemist* (1966, page 187, the publication of the American Institute of Chemists).

I submit that the ABA definition and requirements for disclosure of utility expressed in Sections 100(g) and 112 of S. 2597 would be a step toward a strong

but flexible patent law which would be universally supported by industry as well as the patent bar.

Respectfully submitted,

WILLIAM H. EDGERTON, Ph. D.,
Manager, Corporate Patents.

STARK BRO.'S NURSERIES & ORCHARDS Co.,
Louisiana, Mo., March 8, 1968.

MR. TOM BRENNAN,
Chief Counsel, Subcommittee on Patents, Trademarks, and Copyrights of the
Senate Judiciary Committee, Old Senate Office Building, Washington, D.C.

DEAR MR. BRENNAN: When I was in Washington in February, I received a phone message from Senator McClellan's Secretary who told me that Senator McClellan and you had asked her to assure me that any statements or pertinent information regarding S. 1042 could be filed by March 1 or later, if more time was needed. I greatly appreciated this consideration, especially since I was sent to the hospital in St. Louis for an operation on my vocal cords and I am still in a complete voice rest. However the doctor assures me that the situation is all clear now, but I must be careful for awhile and check with him regularly.

Since last November when I was commissioned to secure the latest information and techniques affecting sexually reproduced plants from seeds, I have gathered together a mass of pertinent information from a large number of authoritative sources. Most of this is in the form of letters and from personal conferences with scientific groups and individuals from all sections of the nation, most of them recognized authorities in this field.

It was necessary to condense and summarize some of the findings to save reading time but the complete letters are also being attached to my report for fuller study if desired.

Although this information and report was prepared for the use of our Special Committee on Plant Patents, it contains very pertinent information on Plant Patents, affecting specifically the Amendment "or Sexually" to S. 1042. I am filing this report in connection with S. 1042 and I trust it will be helpful.

I have been closely connected with the Plant Patent program for 40 years, even before the legislation was passed by Congress, but the last three months have been for me "*a concentrated education*" secured from the people who are on the "firing line" and "steering the ships". I am not a technical plant breeder but I know a lot more about the subject now than I did three months ago.

I am writing this letter as an individual who is deeply interested in the continued success of the Plant Patent legislation and as the former Chairman of the National Committee on Plant Patents which co-operated with the Congressional Committees, the Patent office, U.S. Department of Agriculture and other agencies concerned with the preparation and passage of the original Plant Patent legislation in 1930.

Thanking you again for your consideration, I remain,

Sincerely,

PAUL C. STARK.

SUMMARY OF REPORT

Asexually reproduced plants are identical with the scions or buds of the "mother" plant from which they are grown. They can be identified as to variety quite readily.

The present Plant Patent law applies to definite constant varieties and can be enforced only with regard to such varieties.

Plants grown from seed, on the other hand, may vary from the "mother" plant to such an extent that it is practically impossible to positively identify a variety of any crop plant, although a rather loose classification as to kind is possible.

Obviously, if originators of new seed reproduced kinds of plants are to be given legal control of these new kinds, it could be better done by legislation or regulation not based on positive variety identification as is the present highly successful Plant Patent Law.

Attached are opinions of plant breeders and geneticists with regard to variability in seed reproduced plants.

REPORT

As chairman of the original *Plant Patent Committees of the Nurserymen, and the Seedsmen*, 40 years ago, I am interested in seeing the continuing successful operation of the present Plant Patent law. As the Chairman of the Seedsmen's

Committee for Plant Patents, I worked for a number of years to get interest aroused for protection for seed propagated crops. However in 1929 when the matter of *including seeds* in a proposed Plant Patent amendment was presented to officials of the Patent Office, of Congressional Committees and the U.S. Dept. of Agriculture, it was clearly evident that *no Plant Patent bill could be passed that included seed propagated plants.*

The report on *Plant Patents or Registration* by a Special Committee of *American Society for Horticultural Science* in 1930 reported strongly in opposition to including seed propagated plants, based on reports from a group actively engaged in plant breeding of sexually propagated plants from seeds. Two quotations from this report indicate the general tone of the report.

"* * * even tho granting that the intentions of the idea are good, all emphasized that the patenting of seed propagated plants was useless because laws concerning it *could not be enforced.*"

* * * * *

"The one insurmountable difficulty which seven of the nine correspondents mentioned is the *inherent instability and variations* of seed-propagated plants. Existing types and even ideals are constantly shifting.

It is recognized that much progress has been made in recent years in methods in plant breeding and variety improvement in sexually propagated plants by seeds. For example, my conferences with *Hybrid Corn breeders* brought out the situation that they feel they have a *better and quicker method of protection* of their new hybrids than could be secured if *plant patents* were available. Similar expressions were made by Plant breeders in other divisions of the seed trade which are developing hybrids.

SURVEY FROM RECOGNIZED AUTHORITATIVE SOURCES

When this matter was under discussion at the November meeting of our Special Committee for Plant Patents of the National Association of Plant Patent Owners Association, I was *commissioned to make a survey* and assemble information for our Special Committee on Plant Patents from recognized authoritative sources to *ascertain whether or not* "sexually reproduced plants from seeds" met the *requirements of stability and reproducibility* sufficient to fit into the Plant Patent Systems.

I discovered the following day that there was a large convention in Washington of the *American Society of Agronomy* which included a division known as the *Crop Science Society*, whose members included leading Plant Breeders, Geneticists and Agronomists from all parts of the country.

For two days I interviewed about *fifty of these men*, explaining our Special Committee's desire for the *latest information* on this subject.

In my talks with these plant breeders, geneticists and agronomists at the American Society of Agronomy meeting in November the general opinion was *almost unanimous* regarding the *complex technical problems and difficulties of maintaining stability* in sexually reproduced plants from seeds over a period of years.

The *difficulty of description* of a new seed-reproduced plant with its *variance over the years* was mentioned by most of the men consulted and nearly every one also brought up some additional difficulties or *impossibility of positively identifying* the new variety and proving *infringement*, which would make *enforcement very difficult or impossible.*

The following quotations give more details supporting the above statement.

From the testimony of *Dr. John Poehlman, Department of Agronomy, University of Missouri* at the *February 1, 1968 Hearing* before the Senate Subcommittee on Patents, Trade Marks and Copyrights, in regard to the amendment proposed to add "*or sexually*" to the Plant Patent Act.

"It is my judgment and that of many plant breeders with whom I have communicated that:

- (a) Concise descriptions cannot be given for most varieties.
- (b) The range of variability within varieties, changes from generation to generation. They do not stand still."

INHERENT VARIABILITY—DIFFICULTIES OF DESCRIPTION AND ENFORCEMENT

In a letter to *Dr. John L. Poehlman, Professor of Agronomy, University of Missouri* at the time of his testimony before the Senate Sub Committee on Patents, Trade Marks and Copyright on February 1, 1968, from *Dr. Roy Creech,*

Associate Professor of Plant Breeding, Department of Horticulture, Pennsylvania State University:

"It seems that the major issues involve the biological instability inherent with the genetic mechanism and the problems of enforcing regulations that would naturally follow such an amendment. In my opinion, no expert exists that could serve as the authority in such a matter."

Dr. A. A. Hanson, Chief, Forage and Range, Research Branch & Past President, Crop Science Society of America, wrote to Edward J. Brenner, Commissioner of Patents on January 17, 1968:

"No acceptable alternatives have been proposed to replace protection now afforded by plant patents to the developers of asexually propagated varieties. Similarly, there is no logical basis for extending the patent system to include seed propagated species. The variability in sexually reproduced varieties and changes in type attributable to genetic shift would vitiate the intent of the patent system, which rests on the protection of unique and reproducible discoveries.

"The existing plant patent system should be preserved without change."

The following is quoted from an article in the U. S. Department of Agriculture, Yearbook of 1961, page 388 by Dr. Victor Bosirell, Crops Research Division, Agricultural Research Service, U.S.D.A.

"It is harder to control a variety's inherent tendency to vary and to change as a result of natural selection or of the seedsman's selection.

No variety is absolutely uniform and fixed. Although the plants from seeds of a variety may appear as alike as peas in a pod at the time of introduction, they are not all exactly alike genetically. As numbers of plants increase in succeeding generations, after repeated shuffling of countless genes, characteristics emerge that did not have the mathematical opportunity to appear earlier."

The following wire was sent to Senator John L. McClellan, Chairman, Senate Sub Committee on Patents, Trade Marks and Copyrights, on January 31, 1968—Dr. Henry M. Munger, Professor of Plant Breeding and Vegetable Crops, Cornell University.

"I urge defeat of amendment to S1042 extending patents to plant varieties reproduced sexually. Inherent variability of such varieties would make enforcement of patents difficult or impossible. Extended study is needed before present plant patent provisions are changed."

Dr. M. W. Adams, Professor of Plant Breeding and Genetics, Crop Science Department, Michigan State University on January 13, 1968, wired:

"I cannot support patent amendment since in my judgment there are no practical means of proving on biological grounds that two varieties in question are either genetically identical or different in any small degree due to inherent variability of biologic materials."

Dr. Louis P. Reitz, President-Elect of Crop Science Society, American Society of Agronomy, wrote Edward J. Brenner, Commissioner of Patents on January 17, 1968:

"Because so many varieties within field crop species cannot be clearly distinguished merely by looking at them, I believe the issuance of patents on seed-propagated forms would be a colossal debacle of confusion. In cases of litigation how could expert witnesses survive cross examination? Inevitably, it seems to me, there would be required an elaborate testing facility where questions could be resolved and this might be a worse problem and cost more than our present procedure."

Dr. D. D. Stuthman, Assistant Professor, Agronomy and Plant Genetics, University of Minnesota:

"As you well know, *impossible* is a strong word, but if an *adequate description* includes information that will allow an *enforcing agency* to rule whether a given lot of seed is the variety in question or not, *it just can not be done with our present day knowledge and technology*. Even the best attempt with exhaustive testing would be so expensive as to be completely impractical."

REASONS FOR EXCEPTIONS OF TUBER-PROPAGATED PLANTS—ALSO APPLIES TO SEED

Enforcement difficulties of sexually reproduced plants from seeds are recognized due to similarity to the potato problem where potatoes were excepted and excluded from the law when it was passed by Congress in 1930.

Hearing of House Committee on Patents on H.R. 11372 (April 8, 1930)
"Exception of Tuber-Propagated Plants"

"Substantially, the only plants covered by the term "tuber-propagated" would be the Irish potato and the Jerusalem artichoke. This exception is made because this group alone, among asexually reproduced plants, is *propagated by the same part of the plant that is sold as food.*"

As Chairman of the National Committee for Plant Patents, I recall the conferences with Patent Office, the Senate and House Committee on Patents and the U.S. Department of Agriculture on this subject and the *decision to except potatoes* from the right to patent under this law. This has proven to be a wise decision affecting the successful operation of the Plant Patent legislation.

It was recognized that *infringement* could be so easy and so widespread because potatoes were *available everywhere* for use as food or for growing the plants that it was felt that *enforcement* could soon become a *farce*. This would reflect unfavorably on enforcement with the *other types of asexually reproduced plants*—so for that reason potatoes were *excluded* from the *original Plant Patent Act* in 1930.

ENFORCEMENT DIFFICULTIES DUE TO TWO TYPES OF INFRINGEMENT WITH PLANTS FROM SEED

In the case of *sexually propagated plants from seeds* the same or greater *difficulties* arise in *enforcement*.

All sexually reproduced plants from seeds would be covered under the "or sexually" amendment to S1042 proposed by the seed trade. The *tremendous number* of different kinds of seed reproduced plants *throughout the world* staggers the imagination and indicates the complexities and enormity of the problems that could develop. *The potential costs* to the Federal and State agencies and services and increased manpower demand are factors causing great concern to those agencies that would be affected.

Seeds are technically *dormant plants* with the *individual seed* containing *all the characteristics and qualities* of the *new plant*. All that is required is *moisture, warmth and sun* to start the new plant to grow. Seeds are *grown and are available everywhere* and they are used for *human food, animal feed and many industrial purposes*, so many complex situation of *infringement and enforcement* difficulties could develop as in the case of potatoes which were excepted from the law in 1930.

The *added problem of enforcement* due to *expert witnesses* not being able to *positively identify the infringing plant* would result in failure of *enforcement*. This is covered in detail in the quotations on the *preceding page*. The *combination of these two types of enforcement failures* with "sexually produced plants from seed" is one of the chief reasons why such *great concern* is felt by the *scientific plant authorities* who believe the great confusion and widespread *lack of enforcement* will endanger or possibly destroy the *asexual part* of the present Plant Patent Law, as it is *tied in* with the *sexual* Section to read "*Asexual or sexual reproduced plants*". When the *Sexual* part fails it could drag the *asexual* division down with it, as this proposed amendment to S1042 joins them together.

SEPARATE SEED PATENT ACT SAFEST FOR ALL CONCERNED

Our N.A.P.P.O. attorney who has attended all the meetings of our Special Committee on Plant Patents, has warned the Special Committee at *every Special Committee meeting* and also at the *annual meeting* of N.A.P.P.O. members that the *Asexual section* of the present Plant Patent Law which affects the *best interest* of NAPPO members would be in *much less danger* if the proposed inclusion of "Sexually propagated plants from seed" were in a *separate additional section* of the patent act. This is also strongly stated by Wm. Flemer, III, a member of our Committee, in his letter of January 15, 1968 to Richard Hutton, President of NAPPO and member of our Special Committee. In Richard Hutton's letter of recommendation to our Special Committee on Plant Patents of April 18, 1967, he also recommended that the Special Committee adopt this position of "*a separate Seed Patent Act as an extension of Patent legislation or some other form of protection*". The Seed Trade *did not do this* and in their seed amendment to S1042 added "*or sexually*" to the asexual section to read "*asexually or sexually reproduced plants.*"

The Special Committee on Plant Patents was given the responsibility by the members of the National Association of Plant Patent Owners to look after the *best interests* of the *present plant patent owners* who are members of NAPPO

and to endeavor to protect the present Plant Patent Legislation from any action that could *weaken or endanger* its record of effective and successful operation for the past 38 years. The present Plant Patent Law is *practical*, it has *proven beneficial to both inventors and the public*. Therefore, it should be left alone as amendments could make it unworkable and result in the possibility of no law at all. The most thorough study and careful consideration by all groups and parties affected should be completed before any changes are made in this successful legislation that has such strong support from *scientific groups, the trade and the general public*.

This report on the present scientific and technical situation with sexually reproduced plants from seed, which the Special Committee on Plant Patents asked me last November to secure from *the best scientific authoritative sources* was the *principal reason* for calling this meeting on February 20, 1968.

I believe this *recent survey* and results of a *series of conferences* I have had with recognized scientific authorities on this subject, has brought together a much clearer picture of the *present complex situation* of "sexually reproduced plants from seeds." The *questions and serious problems* arising as a result of this attempt to include seed propagated plants under the provisions of our present Plant Patent Legislation, are very far reaching.

ALL FAVOR CONTINUING PLANT PATENT LAW—URGE VERY CAREFUL STUDY BEFORE BASIC CHANGES

Practically all the plant breeders, geneticists, horticulturists and other scientific groups with whom I conferred were greatly interested in the *advancement of programs and activities*, both public and private, for *the improvement of varieties of plants*.

All were *definitely in favor* of continuing the present plant patent law. At the patent office, I was informed that practically all associations and individuals who had responded to the invitation of the Commissioner of Patents, Edward J. Brenner, for statements, had been *in favor of continuing* the present *Plant Patent Law* which had been in successful and efficient operation since 1930.

However the reaction of *practically all of these scientists* who were familiar with plant breeding and improvement of horticultural varieties, were almost unanimous in *urging very careful study* of any *basic changes* in the plant patent law until full consideration of the *far reaching consequences* could be made by the various groups interested and directly affected by such proposed changes.

Many of those consulted, pointed out the successful operation of the present Plant Patent law applying to asexually propagated plants which has worked so well and *steadily received increasing support* of the horticultural trade and the general public.

At the same time they emphasized the vast difference of the *asexual reproduction*, with *no sexual process effect* on the reproduced plant, on the one hand *as compared with* the variance of the plants *sexually reproduced from seed* where the *sexual process was in operation*, resulted in many complex situations that indicated why seed propagated plants *did not fulfill the requirements* for *receiving plant patents*.

These men stated that the *infringement problem* would be very serious and could be *almost impossible to enforce* with so many commercial concerns, agencies and individuals growing and handling the new seed varieties and the *difficulties* of proving *infringements*, with resulting *lack of enforcements*.

Asexual reproduction and sexual reproduction are basically *entirely different*. To attempt to merge the *two different systems*, with the *same regulations* for both, would be a *disservice* to those *interested in protection* for *sexually reproduced plants* and could *endanger or defeat* the proven, workable and popular Plant Patent Legislation now in operation for *asexually reproduced plants*. If this should happen the Seed Trade would *lose twice*, not only *their own amendment* but they would also lose the highly successful Plant Patent Legislation for *asexually reproduced plants*. This successfully workable law is their best argument for *protection by some appropriate legislation or system* that *fits the characteristics of sexually reproduced plants* so that *infringements* could be proved and the regulations *enforced*.

If *whole Plant Patent Act failed* as a result of the seed amendment to S1042, those interested in asexual reproduced plants in the present law would lose the benefit of a *sound constructive law* and the seedsmen would lose out by insisting on *tying into a law* in which their seed propagated plants *did not qualify or fit* and could *not be enforced*.

A.S.H.S. AND OTHER SCIENTIFIC ORGANIZATIONS ALERTING MEMBERS—ANALYZE
POTENTIAL CONSEQUENCES

The *American Society for Horticultural Science* through its Board of Directors has written the Commissioner of Patents, Edward J. Brenner, presenting their opinion and recommending the continuance of the present Plant Patent legislation.

They have also urged *careful study and analysis by all groups affected of the potential consequences* of the proposed amendment to add "or sexually" to S. 1042. This letter to the Commissioner of Patents is being reproduced in the A.S.H.S. News Letter to alert the 2100 members of this organization. Included in its membership are well known plant breeders, geneticists, horticulturists and other scientists interested in this *broad field of plant improvement*, in both public institutions and private commercial concerns.

Other scientific organizations are also notifying their members of the recent developments in this proposed legislation to extend coverage of Plant Patents to all *sexually reproduced plants from seeds* and the serious consequences that would affect the entire Plant Patent Legislation.

APPROPRIATE, WORKABLE AND PERMANENT PROTECTION CAN BE ACHIEVED FOR SEXUALLY
REPRODUCED PLANTS FROM SEED

I wish to make clear my *present and past desire* to see that plant breeders of Sexually Reproduced Plants from seed have *appropriate and workable protection and encouragement*.

Over 40 years ago I served as Chairman of the Patent Committee of the American Seed Trade Association for a period of years to help arouse interest and support for plant patents, or other forms of protection for seed propagated plants. At that time there was much *lack of interest and differences of opinion* among the different divisions of the Seed Trade about the *desirability or practicability* of such action, and from personal conversations with some seed companies in recent months, I have the impression that considerable lack of interest and differences of opinion still exists in the seed trade.

However there has been *much concern aroused among scientific groups* and individuals in this field as a result of the amendment to add "or sexually" to S1042. All groups affected seem willing to *carefully study the problems* and will help to secure for plant breeders of seed propagated plants an appropriate, practical and workable plan of protection and encouragement that will not *weaken or endanger* the present Plant Patent Legislation. Such a plan will have much help from *many other groups*.

The widespread interest aroused among many groups interested in encouraging and protecting plant breeders and others interested in improvement of plant varieties is a *healthy indication and a constructive development*. With the great interest among many groups and the *determination to develop a practical, workable plan which will fit the characteristics of sexually reproduced plants* from seed, this can be accomplished.

I am confident there can be produced a form of protection that can be *enforced* and result in a *successful and permanent system* that will steadily gain support from scientists, the trade and general public.

FOOD AND FIBER REQUIREMENTS FOR GREATLY INCREASED POPULATION

This is a *sound approach* to a big problem of great importance to the nation, as a whole, *now and in the future* when the "population explosion" throughout the world will require great increases in the agricultural production of *food and fiber* to fill the needs of the people.

The total production of *Food and Fiber* for the future is of national, international and *world-wide concern* and "the time is later than we know."

Food and fiber are *vital munitions in war or peace*. With the tremendous increase in supplies needed for *greatly increased populations*, it is recognized that this *protection and encouragement of Plant Breeders* can be a matter of decisive importance in *increasing the size and quality of nations' agricultural products*. Our nation's future success and stability can be largely influential through *technical leadership in Plant Breeding* for Improved Plant Varieties of better quality and heavier production.

Plant Breeders and others working in this field of Improvement in Plant Varieties have a big challenge and opportunity for *great service to mankind* when it is critically needed. The results they accomplish can be of far reaching influence in *meeting world hunger*.

These food problems of grave concern facing the nation now and in the future emphasize the great importance of developing a *sound, practical and workable system* for Plant Breeders of seed propagated plants.

Agriculture and the Nation *cannot afford the failure* of any ill-advised or hastily enacted legislation such as the "or sexually" amendment to S1042. This could slow down, postpone or confuse the *splendid progress* being made in the *programs of Improvement in Plant Varieties* at the present time throughout the country. Likewise they cannot afford to *weaken or endanger* the present, successful *Plant Patent Law* for asexual reproduced plants, by enacting this amendment to S1042.

The *unanimous opinion* expressed by the scientific groups, familiar with this problem of Sexually reproduced Plants from Seed, has been the necessity of *most careful study and analysis* of these problems *before taking legislative action*. Coupled with these strong recommendations of these scientific authorities, is strong opposition of the U.S. Department of Agriculture to this amendment to S1042.

These scientists *strongly indicate* that a hasty decision on this proposed amendment to S1042 *could have disastrous consequences* to all concerned at a time when all-out efforts are needed to *advance and strengthen* the efforts of Plant Breeding to *meet future demands*.

This whole Food and Fiber problem is not only *national but world-wide*. The effect and possible side-effects of the proposed legislation to amend S1042 by adding "or sexually" can be of direct effect on this great Food and Fiber problem, *by slowing down the efforts*.

This legislative decision has national significance on *many groups* affected and can have *strong impact, good or bad*, in future developments, on the Food and Fiber problems. This is a national problem, larger than any one industry or a section of one industry.

Certainly, in a problem of such *far-reaching consequences*, there must be the greatest effort and most careful consideration to *avoid any mistakes* or ill-advised action that could fail to accomplish the *desired constructive results* or even weaken or be *destructive* of the sound and successful Plant Patent legislation that has *worked so well for 38 years*.

This report to the Special Committee on Plant Patents contains the results of over 3 months of *intensive investigation, surveys and conferences* with scientific authorities throughout the nation in the field of Improvement in Plant Varieties.

The complete letters partially quoted earlier in this report are attached. Also other pertinent letters received from Scientific authoritative sources are also attached.

THE PENNSYLVANIA STATE UNIVERSITY,
COLLEGE OF AGRICULTURE,
University Park, Pa., January 31, 1968.

Dr. JOHN M. POEHLMAN,
Washington, D.C.

DEAR DR. POEHLMAN: This letter is in support of your arguments concerning the proposed change in the plant patent act to include sexually propagated crop species. I agree with the statements brought forward by University of Missouri scientists in the mimeograph under your letter to Mr. Paul Stark, of December 13, 1967. "It seems that the major issues involve the biological instability inherent with the genetic mechanism and the problems of enforcing regulations that would naturally follow such an amendment. In my opinion, no expert exists that could serve as the authority in such a matter."

I strongly recommend that a joint study be made by both public and private plant geneticists and breeders, perhaps jointly sponsored by the American Seed Trade Association, the American Society of Agronomy and The American Society for Horticultural Science, to ascertain the facts related to the proposed change and the inherent problems if such a change is enacted.

Sincerely,

ROY G. CREECH,
Associate Professor of Plant Breeding.

NEW YORK STATE COLLEGE OF AGRICULTURE
AT CORNELL UNIVERSITY.

Ithaca, N.Y., January 30, 1968.

Dr. JOHN M. POEHLMAN,
Washington, D.C.

DEAR DR. POEHLMAN: At the request of Mr. Paul Stark I am sending you herewith a copy of a letter sent today to the Commissioner of Patents by a number of the faculty members of the Department of Plant Breeding and Biometry at Cornell University.

Tonight I am sending the following telegram to Senator John L. McClellan:

"I urge defeat of amendment to S1042 extending patents to plant varieties reproduced sexually. Inherent variability of such varieties would make enforcement of patents difficult or impossible. Extended study is needed before present plant patent provisions are changed."

I appreciated receiving through Mr. Stark the comments and questions on plant patents that were made by your group at the University of Missouri.

Best wishes for success in your efforts in Washington.

Sincerely yours,

HENRY M. MUNGER,

Professor of Plant Breeding and Vegetable Crops.

CROP SCIENCE SOCIETY OF AMERICA,

January 17, 1968.

Mr. EDWARD J. BRENNER,
*Commissioner, U.S. Patent Office,
U.S. Department of Commerce.*

DEAR COMMISSIONER BRENNER: Dr. F. L. Patterson, President, Crop Science Society of America, asked members of CSSA Executive Committee and Seed Committee to comment on your letter of January 4, 1968. In this letter you requested comments on a recommendation of the President's Commission on the Patent System, namely, "all provisions in the patent statute for plant patents shall be deleted, and another form of protection provided."

I have a general understanding of the controversy engendered by this recommendation and the circumstances that led to its inclusion by the President's Commission. In my judgment, the recommendation is premature. No acceptable alternatives have been proposed to replace protection now afforded by plant patents to the developers of asexually propagated varieties. Similarly, there is no logical basis for extending the patent system to include seed propagated species. The variability in sexually reproduced varieties and changes in type attributable to genetic shift would vitiate the intent of the patent system, which rests on the protection of unique and reproducible discoveries.

The existing plant patent system would be preserved without change.

Sincerely yours,

A. A. HANSON,

*Chief, Forage and Range Research Branch,
and Past President.*

CROP SCIENCE SOCIETY OF AMERICA,

Madison, Wis., January 19, 1968.

Mr. EDWARD J. BRENNER,
*Commissioner, Patent Office,
U.S. Department of Commerce,
Washington, D.C.*

DEAR MR. BRENNER: I have Dr. Patterson's letter to you of January 11, 1968, in which he asks me to express my views regarding the patent law covering plants. My comments are mainly on experience with small grain crops and are only my own views. They do not represent official views held by the Crop Science Society of America or the U.S. Department of Agriculture.

The long standing and, in general, effective plant patent law with application to certain asexually propagated plants should be continued without interruption. It is not perfect but to delete it before another form of protection is provided appears to be wholly unsound and can cause hardship to those segments of the

trade who have depended upon it. Therefore, I strongly recommend continuance of the present patent law.

I further feel there should be a review of the patent position with respect to seed plants and commend you for seeking opinions on this aspect of the problem. There are many difficulties which I think all revolve around two problems, namely: (1) protection of the plant entity from exploitation by others on ethical grounds and this generally means protection of a distinctive name associated with a plant genotype; and (2) a system by which to collect a royalty from users of the seed beyond present limited opportunities as a means to recoup expenses incurred in developing the new form.

The CSSA registers new varieties of field crops and superior germ plasm. This provides published information to the public on the origin and special value of new varieties. This assures that duplicate names will not be used in the register. However, the service is voluntary and no policing is involved. The U.S. Department of Agriculture also makes news releases about new seed varieties we develop and periodically we publish descriptions of these. In many cases the "distinctiveness" of these varieties is *physiological and not of taxonomic value*; in fact, *many varieties look alike*.

Because so many varieties within field crop species cannot be clearly distinguished merely by looking at them, I believe the issuance of patents on seed-propagated forms would be a colossal debacle of confusion. In cases of litigation how could expert witnesses survive cross examination? Inevitably, it seems to me, there would be required an elaborate testing facility where questions could be resolved and this might be a worse problem and cost more than our present procedure.

A patent would tend to dry up the supplies of germ plasm so freely made available now and shared by breeders. The patent process could delay the release.

I doubt the real annoyances caused by a very small number of unscrupulous seedsmen would be eliminated by a patent law. It would only cause them to find other ways to carry on. For example, it would be a lethal blow to have a "sharp" get a patent on a variety form and, thereby, tie up all other similar forms when performance was far better in the others.

Each segment of the seed trade should practice more self regulation. Public and private supported breeders should be working together. The American Seed Trade Association, for example, CSSA and State and Federal workers can all benefit from greater harmony of action.

Again, let me say that further study of the seed plants is required before patents are extended to them. In the meantime, I believe plants covered under the present law should continue to enjoy the protection this provides until another form of protection is found.

Sincerely yours,

LOUIS P. REITZ,
President-Elect.

UNIVERSITY OF MINNESOTA
INSTITUTE OF AGRICULTURE,
St. Paul, Minn., January 15, 1968.

MR. PAUL STARK,
*Stark Brothers Nurseries,
Louisiana, Mo.*

DEAR MR. STARK: Please pardon my tardiness as I was out of the office the week of January 9 with the flu. I really have nothing to add to the statement from the Missouri people except to elaborate on point (a) of the second part. In crops, such as alfalfa, where "synthetic varieties" are in common commercial production this statement could be accurately reworded to read: impossible to adequately describe such a heterogeneous variety. As you well know, *impossible* allow an enforcing agency to rule whether a given lot of seed is the variety in question or not, it just cannot be done with our present day knowledge and technology. Even the best attempt with exhaustive testing would be so expensive as to be completely impractical. Well, I have rambled on long enough, but hope that this specific example will be of some help to you.

Sincerely,

DOEN D. STUTHMAN,
Assistant Professor, Agronomy and Plant Genetics.

PURDUE UNIVERSITY,
DEPARTMENT OF AGRONOMY,
Lafayette, Ind., January 10, 1968.

MR. PAUL C. STARK,
*Vice President, Stark Brothers Nurseries,
Louisiana, Mo.*

DEAR MR. STARK: It appears to me that the removal of the word "asexual" from the patent law would raise a number of questions on procedures and enforcement. These questions are brought out well in the letter of Dr. Poehlman of the University of Missouri. These cover the problems and difficulties which I foresee. One cannot truly evaluate the problems until the policies and procedures proposed to cope with them can be examined.

Sincerely,

FRED L. PATTERSON,
Professor.

UNIVERSITY OF WISCONSIN,
DEPARTMENT OF AGRONOMY,
Madison, Wis., January 13, 1968.

MR. PAUL C. STARK,
*Stark Brothers Nurseries and Orchards Co.,
Louisiana, Mo.*

DEAR MR. STARK: It has not been possible for me to get our fellows together here to discuss the plant patent law. However I intend to do this next week and will then send a statement to Mr. Brenner at the Patent Office. He wrote under date of January 4 asking for opinion as to the desirability of the revocation of the present law and the substitution of "another form of protection".

Recently Dr. F. L. Patterson has written in the name of the Crop Science Society of America to Mr. Brenner and has requested no action until further study can be made of this matter. He referred to the discussion and conclusions from the symposium at the 1963 meetings of the American Society of Agronomy which were generally against issuance of patents for seed-propagated crops. I believe that the Crop Science Society is the strongest voice for the field crops people of the United States. I intend to write to Mr. Brenner as Chairman of the Department of Agronomy here and not as President of the American Society of Agronomy. The latter action would require approval of the Society Executive Committee and this matter could not be discussed with the group before late March or early April.

I will send a copy of my letter to Mr. Brenner to you.

Sincerely yours,

D. C. SMITH.

MISSOURI SEED IMPROVEMENT ASSOCIATION,
Columbia, Mo., January 12, 1968.

MR. PAUL STARK,
La Salle Hotel, Chicago, Ill.

DEAR MR. STARK: In regard to the patent of plants, my comments are still very similar to the discussion that we had in Columbia, Missouri with you on December 8, 1967. On behalf of the Missouri Seed Improvement Association we don't believe that plant patenting is the right direction to go in, therefore, we feel that plant patents will be difficult to control and enforce. In patent laws that pertain to plants a new variety must be described by morphological characteristics, agronomic performance, disease and insect resistance and quality characteristics. In varieties that are cross-pollinated, multilines or self-pollinated crops there are also a range of variability and how are these to be described and recorded? In our self-pollinated crops how will they be controlled? In this I mean if a variety is released by the plant breeder and gets into the hands of farmers who are going to grow this variety will it still be called by the variety name after one, two or three generations or as long as it is in existence. If it is called by its variety name, will farmers be able to sell seed and call it by this name without paying a royalty on it after a few years? In other words, I think that patents of crop varieties will be impossible to enforce, slow down release of new varieties, add additional time and cost to the varieties, hinder exchange of planting materials

between public and private breeders, and hinder selection with a variety which is commonly done today to improve on the original variety.

I wish you much success in your endeavor.

Yours very truly,

WYNARD E. ASLIN,
Executive Secretary.

THE UNIVERSITY OF WISCONSIN
COLLEGE OF AGRICULTURE,
Madison, Wis., January 29, 1968.

Hon. EDWARD J. BRENNER,
Commissioner, Patent Office, U.S. Department of Commerce,
Washington, D.C.

DEAR MR. BRENNER: This letter is in response to yours of January 4 inviting comments and reactions to the proposed changes in the patent law as related to plants. Letters have been sent to you by F. L. Patterson, current President of the Crop Science Society of America, and by L. P. Reitz, President-Elect of that group. While I am incumbent President of the American Society of Agronomy, this letter is written on behalf of Crop Science workers in the Department of Agronomy of this University. The following summarizes our position:

1. The patent law covering vegetatively propagated plants has served a useful purpose during its existence. Changes in legislation should not jeopardize or nullify this value.

2. It is highly desirable that private companies making substantial investments in breeding of seed-propagated crop plants be compensated. A system of control to assure such compensation may be needed.

3. We actively engaged in the plant breeding enterprise have no basis to disagree with the decision of the President's Commission that the patent system is inappropriate for protection of plant hybrids or varieties. It is noted that the Commission urges further study of the matter.

4. Revision of the law to cover both vegetatively and seed-propagated plants adequately is a considerable task. Present proposed legislation has not been developed, presumably, by consultation equally of different interest groups.

5. Your notification dated Jan. 4 has not allowed adequate time for consideration of this matter by many individuals and organizations not included in advising as to the need for and mechanics of a revised law and its promulgation.

6. There is a great variation of opinion among organizations and among individuals within organizations as to the desirability of a law to include seed-propagated plants.

It is urged that the coverage for vegetatively-propagated plants be continued and inclusion of seed-propagated plants deferred until more adequate studies can be made concerning this matter, by *representatives of the diverse interests.*

Very truly yours,

D. C. SMITH,
Chairman.

PENNSYLVANIA STATE UNIVERSITY,
DEPARTMENT OF HORTICULTURE,
January 30, 1968.

Hon. JOHN L. McCLELLAN,
U.S. Senate,
Washington, D.C.

DEAR SENATOR McCLELLAN: It is understood that the Senate Sub-committee on Patents, Trademarks and Copyrights will be hearing proposals this Thursday to include sexually propagated plants in the plant patent act, which if approved and enacted would allow the patenting of both asexually and sexually propagated plants. It is the opinion of many members (in our opinion a majority) of the plant breeding profession that the proposed change would impose certain distinct and serious problems to future crop improvement through sexual means in this nation. We are certain that Dr. John M. Pochman of the University of Missouri, an eminent plant geneticist and breeder, will discuss some of these problem areas with the distinguished committee members. However, it is our desire and respectful request that no action be taken on the proposal to add sexual crops to the plant patent act until additional facts have been obtained and a joint study is made by both public and private plant geneticists and breeders.

To repeat, we have certain facts at our disposal that support the view that such a proposal would be deleterious to plant breeding research in this country and would be pleased to itemize and discuss these problems in such a joint study. In general, however, biological instability inherent with the sexual mechanism, and the problems of enforcing regulations that would naturally follow if sexually propagated crops are approved for plant patents, lead this list in order of importance.

Very truly yours,

DARRELL E. WALKER, *Head.*

NEW YORK STATE COLLEGE OF AGRICULTURE,
Ithaca, N.Y., January 29, 1968.

COMMISSIONER OF PATENTS,
Washington, D.C.

DEAR SIR: We, the undersigned faculty members of Cornell University with responsibilities in research and teaching related to the improvement of varieties of economic plants, wish to make the following comments on the President's Commission's recommendation concerning plant patents:

(1) We believe that the present provisions for patenting certain asexually-reproduced plants have been in the public interest and it would be unwise to delete these until and unless a better form of protection can be provided.

(2) With regard to the suggestion that plant patent protection be enlarged to include sexually reproduced plants, our view is that no action should be taken until there has been an opportunity for thorough consideration by all concerned. The inherent variability of many varieties of sexually reproduced plants presents different problems than are found in those asexually reproduced. No specific proposal on the extension of plant patents has been available to plant breeders in public agencies until late in January 1968. In view of the complexities of patenting sexually reproduced plants and the possible impact of such patents on relationships between public and private plant breeding programs, we suggest that one year should be allowed as a minimum time for study and discussion of this matter.

Sincerely yours,

Carl C. Lowe, J. Neil Rutger, Loy V. Crowder, Royse P. Murphy, Ronald E. Anderson, Neal F. Jensen, Henry M. Munger, Thomas E. Devine, O. H. Pearson.

STATE OF NEW JERSEY,
DEPARTMENT OF AGRICULTURE,
Trenton, N.J., January 30, 1968.

Mr. EDWARD J. BRENNER,
Commissioner of Patents, Department of Commerce,
Washington, D.C.

DEAR MR. BRENNER: In the matter of the President's Commission's recommendation concerning Plant Patents, I should like to submit the following views and recommendations.

For many years, it has been my privilege to observe the benefits that have been realized by the plant industry of this area and of the United States generally because of the plant patent law.

Built into the law is the incentive for the plantsmen and breeders that has resulted in many benefits to the agriculture of the United States and to the consuming public.

of immeasurable benefit to our agriculture and the plant patent system has permitted the developer of these materials the necessary financial advantage. In the ornamental field the improved roses, shrubs, flowers and trees have been the basis on which many nursery and florist businesses have been established, forming a healthy prosperous ornamentals industry. The benefits have, of course, been shared by producer and consumer.

In the "Federal Register" announcement of January 3, the recommendation is to delete plant patents from the patent statute, and provide another form of protection to the inventor or discoverer. Certainly, the plant patent provisions have served their purpose very well and the scrapping should not be considered

on the basis that another form of protection will be provided. Rather, it is urgently requested that the system that has worked so well be preserved, at least until such time as another form of protection is devised and has the support of the industry that is so dependent upon this protection.

There is no question but that the addition of sexually reproduced plants and seed to the plant patent protection system would bring on many complications. But the functioning of the system with regard to asexually reproduced plants has been highly successful for all of the public.

Your consideration is asked so that the plant patent system might be maintained as is. If protection is also desired for materials sexually produced, then we would urge your further study to determine the most appropriate means of providing that protection.

It is my considered opinion that these recommendations will be in the best interest of all of the people of our State.

Thank you for your consideration.

Sincerely yours,

PHILLIP ALAMPI.

(Copy of telegram sent Jan. 25, 1968)

HON. STUART SYMINGTON,
Senator of Missouri, Senate Office Building,
Washington, D.C.:

We the undersigned, faculty members of the Agronomy and Horticulture Departments urge that you employ whatever means at your disposal to defeat the Proposed amendment to the Plant Patent pertaining to sexually reproduced plants. Such a law would be impossible to enforce and would not benefit the Missouri seedsmen, farmers or consumers. We would favor no change in the present Plant Patent Statute.

WYNARD ASLIN.
JOE BALDRIDGE.
BILL TWEEDY.
VICTOR LAMBETH.
LLOYD CAVANAH.
MARCUS ZUBER.

UNIVERSITY OF CALIFORNIA,
DEPARTMENT OF VEGETABLE CROPS,
January 30, 1968.

Senator JOHN L. McCLELLAN,
Chairman, Subcommittee on Patents, Trademarks, and Copyrights, Committee
on the Judiciary, U.S. Senate, Washington, D.C.

HONORABLE SENATOR: This is in regard to an amendment to Bill S1042 which would change the phrase "asexually propagated plants" to "asexually or sexually propagated plants" in the patent law. We, a seed physiologist and five plant breeders in the Vegetable Crops Department, University of California, heartily endorse the point of view with his reasons to be presented by Dr. John M. Poehlman at your hearing on Thursday, 1 February, 1968, opposing this amendment. We recommend to the Subcommittee the discussion in Publication Number three of the Crop Science Society of America entitled Plant Breeder's Rights, especially the articles by John Carew and W. M. Meyers.

J. F. HARRINGTON, *Professor of Vegetable Crops.*
P. G. SMITH, *Professor of Vegetable Crops.*
G. C. HANNA, *Olericulturist.*
J. E. WELCH, *Associate Olericulturist.*
G. N. DAVIS, *Professor of Vegetable Crops.*
C. M. RICK, *Professor of Vegetable Crops.*

UNIVERSITY OF MISSOURI,
COLLEGE OF AGRICULTURE,
Columbia, Mo., January 12, 1968.

Mr. PAUL STARK,
c/o La Salle Hotel,
La Salle and W. Madison,
Chicago, Ill.

DEAR Mr. STARK: I would like to express considerable concern regarding the present attempts to change the Plant Patent laws unless there is careful study and understanding of the consequences. Either abolishment of the present law or broadening it to include varieties of sexually propagated would have far reaching consequences.

In considering these changes, careful study should be given to the problems of enforcement, the effect on the release of new varieties, and the effects on the free exchange of breeding materials of crop plants that now exists.

While propagated plant varieties remain genetically stable and do not change over time, this is not true of many varieties of crop plants, particularly cross-pollinated crops such as the forage grasses and alfalfa, or those partially cross-pollinated, such as cotton. In these crops the genetic composition may change from year to year so that a variety in a few years hence may not fit the description under which it was patented. This is particularly true for forages or cotton, where seed is produced in an area different from the area of adaptation.

How does one make gradual improvements in varieties of cotton or in synthetics, as is now practiced, if they are subjected to a patent?

Will breeders exchange breeding materials freely if they are subject to patenting?

Will a farmer be prevented from planting his own seed of a self-pollinated crop, or from selling it to a neighbor as seed?

Who will enforce such an act?

I think these are some of the questions that must be studied very carefully before proceeding to a change in the present law.

Sincerely yours,

J. M. POEHLMAN,
Professor and Associate Chairman of Agronomy.

UNIVERSITY OF CALIFORNIA, DAVIS.
COLLEGE OF AGRICULTURE,
Davis, Calif., January 11, 1968.

MR. PAUL STARK,
*Senior Vice President, Stark Brothers,
Louisiana, Mo.*

DEAR MR. STARK: Thank you for including me amongst the plant breeders; however, I am a seed physiologist and not a plant breeder.

I have read your comments with interest and also the report prepared by the Agronomy Department of the University of Missouri. I agree wholeheartedly with the questions they raise and the difficulties they suggest will occur. I am strongly opposed to the inhibition that the plant patent law would give to the free exchange of genetic material amongst public plant breeders and between public and private plant breeders. I would also like to report that all of the four plant breeders in this Department strongly concur with me.

Sincerely yours,

JAMES F. HARRINGTON,
Professor of Vegetable Crops.

UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE,
Columbia, Mo., December 13, 1967.

MR. PAUL STARK,
*Stark Bros. Nurseries,
Louisiana, Mo.*

DEAR MR. STARK: Enclosed are the comments we wrote down regarding our discussion last Friday on the proposed change to the Plant Patent Law. These were circulated to the staff present and additional suggestions incorporated which caused the delay in getting them to you.

It was a privilege for use to have the opportunity of discussing this with you.

Sincerely yours,

J. M. POEHLMAN,
Professor of Agronomy.

COMMENTS ARISING FROM THE DISCUSSION ON PLANT PATENTS WITH MR. PAUL STARK AT COLUMBIA, MO., DECEMBER 8, 1967

QUESTIONS ARISING FROM A PLANT PATENT LAW WHICH WOULD INCLUDE SEXUALLY PROPAGATED CROPS

1. Who will enforce the Plant Patent Law?
2. Who provides proof that the variety is unique and different?
3. Who will verify the description of a variety offered for patenting? This will require (a) morphological characteristics; (b) agronomic performance; (c) disease and insect resistance; and (d) quality characteristics.

4. In a variety of a cross-pollinated crop, or a multiline variety of a self-pollinated crop, how will the range of variability be described and recorded?

5. Will seed varieties meet the degree of stability or reproducibility required by patent law?

6. Who will maintain Breeder's seed and how would the seed be increased and distributed?

Some difficulties that may arise from patenting varieties of vegetable or field crops:

(a) Difficult or impossible to adequately describe a variety without extensive testing in the areas where it is to be grown.

(b) difficult or impossible to enforce.

(c) Would slow down release of new varieties due to additional time (and cost) required to obtain a patent.

(d) Would hinder exchange of breeding materials between public and private breeders, or even between public breeders in different experiment stations.

(e) Improvement by selection within a variety, as is commonly done in cotton, would be hindered since any reselection would be genetically different from the original and would need to be repatented.

(f) When seed production of cross pollinated variety is grown in an area different from the area of production, such as seed of Wisconsin variety of alfalfa produced in California, the seed produced may not conform to the description of the variety originally patented.

PLANT BREEDERS INTERVIEWED IN NOVEMBER 1967 BY PAUL C. STARK

SUBJECT: PROPOSED AMENDMENT TO PLANT PATENT LAW TO REMOVE THE LIMITATION OF THE WORD "ASEXUAL"—TO PERMIT PATENTING OF ALL KINDS OF PLANTS INCLUDING THOSE SEXUALLY REPRODUCED BY SEED—IF NEW AND DISTINCT

Dr. Fred Patterson, Purdue University

Dr. H. W. Johnson, University of Minnesota

Dr. Wayne W. Adams, Michigan State University

Dr. Roy Creech, Pennsylvania State University

Dr. J. Richie Cowan, Oregon State University

Dr. James Harrington, University of California at Davis

Dr. D. C. Smith, University of Wisconsin and President of Agronomy Society of America

Dr. R. L. Plaisted, Cornell University

Dr. Paul H. Harvey, Crop Science Department, North Carolina

Dr. O. A. Vogel, Washington State University

Dr. C. R. Webber, Petersen Seed Co., (Waterloo) Iowa

Dr. K. B. Porter, Bushland Research Center, Texas

Dr. D. D. Stutman, University of Minnesota

Dr. W. D. Pardee, Cornell University

Dr. Paul Harvey, Crop Science Department, North Carolina

Dr. Glen Burton, Georgia Coastal Experiment Sta., Tifton, Ga.

Dr. G. T. Webster, University of Kentucky

Dr. J. H. Miller (retired), USDA Crops Research Division

Dr. P. J. Lowsch, University of Missouri

Dr. M. S. Zuber, University of Missouri

Dr. C. A. Suneson, USDA, University of California, Davis, Calif.

CONFERENCES WITH CROPS RESEARCH CENTER, BELTSVILLE, MD., BY PAUL C. STARK

Dr. G. A. Wiebe—Barley

Dr. O. F. Sprague—Corn and sorghum

Dr. L. P. Reitz—Wheat

Dr. H. C. Murphy—Oats

Dr. B. M. Waddle—Cotton

Dr. C. F. Lewis—Cotton

Dr. K. W. Kreitlow—Forage and range

Dr. A. E. Kehr—Vegetables and ornamentals

Dr. W. J. Zammeyer—Beans and peas

Dr. Neal Stuart—Ornamentals

Dr. S. N. Brooks—Pome fruits

AMERICAN SEED GRADE ASSOCIATION,
OFFICE OF THE PRESIDENT,
Chicago, Ill., July 26, 1926.

MR. PAUL STARK,
Stark Bros.,
Louisiana, Mo.

DEAR MR. STARK: In response to yours of the 16th. relative to the committee on Plant Patents report, would say, that I did not hear this report read nor did I hear of the action taken.

Recently I spent a couple of days with Mr. Funk and took occasion to ask him in regard to this matter, he stated that the report was read but that no action was taken at that time.

It would seem to me, that this matter should be kept in the limelight and not be allowed to go by the board and for your information I have appointed on this committee; Norval Kirby, David Burpee, H. G. Hastings, F. T. Woodruff and yourself as chairman. I trust that your committee will continue its investigations with the hope that in due time something may be worked out.

Please accept my appreciation of your kindly remarks in the last paragraph of your letter, it is needless to say that I feel highly honored and hope that at the end of the year, my good friends will still be good friends.

Very sincerely yours,

JOHN C. LEONARD.

STATEMENT OF SENATOR JOHN TOWER ON S. 2164, MARCH 1, 1928

Mr. Chairman, distinguished members of the Senate Subcommittee on Patents, Trademarks, and Copyrights:

Certainly I am no expert in patent law or practice, nor in the economics of the patent system of rewards to inventors and those who finance the research and development effort that produces invention.

I have however, reviewed this patent matter, and, as a result, I have developed some specific thoughts, as follows:

(a) The commitment of private capital to research and development is of great importance to the progress of the nation—and the patent system is the greatest single force motivating commitment of private capital to such research and development.

(b) The ever-increasing dependency of the nation upon research and development suggests that this is no time to reduce the size of the piece of the pie we award to the private inventor and his private backers. Any patent law revision must be carefully scrutinized for its possible effect in reducing incentives to this private research and development.

(c) I am advised of the strong arguments, many of which have been presented to this Committee, that the Administration's bill, S. 1042, does in fact take a dozen or more bites out of the piece of pie that we have heretofore given the inventor and gives the inventor essentially nothing in exchange. True, each of those bites is a small bite, but the total of all of them does not seem to be so small. As I have noted, the arguments are strong.

(d) There also appears to be an exceptionally strong argument in support of some form of what is known as the first-to-invent system over the first-to-file system that was championed in S. 1042. It appears to me that we can have many of the advantages of first-to-file without the onerous disadvantages of first-to-file by making relatively minor changes in our law. Interestingly, on January 24, 1928, the Assistant Secretary of Commerce, Mr. Kincaid, spoke to the American Patent Law Association in terms suggesting that he agrees with this view in major degree. This is an interesting and constructive change from the previously expressed view of his predecessor, Dr. Holloman.

(e) The arguments that the fundamental goals recited by the President's Commission on the Patent System are not reasonably effected within proper cost bounds by the Administration bill S. 1042 also appear quite strong. Here I am not talking alone about cost in dollars; I am including cost in procedural complexity, cost in reduced rights of inventors, costs in uncertainty of industry that must result from long pendency of applications subject to deferred examination, and the like. Again, here I discern from Mr. Kincaid's remarks to the American Patent Law Association on January 24 that he agrees with me at least to some degree more than his predecessor, Dr. Holloman.

Last summer, Senator Yarborough and I introduced a bill, S. 2164, which I believe is a much better effort at patent law revision than is the Administration bill E. 1042. S. 2164 is primarily a result of the efforts of Texas attorneys who

represent both inventors and industry and who, I believe, see both sides of the issues clearly.

S.2164 would accomplish these five things:

(1) First, it reduces the work load of the Patent Office by allowing the Government and other applicants for "defensive" patents to dedicate their defensive applications for patent in a manner whereby they preserve their defensive position without prosecuting applications through the office. This was the point of S.3007, 88th Congress. That, I believe, is a good approach, and its principle is incorporated into the Yarborough-Tower bill, S. 2164.

(2) S.2164 also allows joinder of the work of several inventors into one application for patent when the end product is one integrated inventive project. This cuts out a lot of red tape that is experienced under present law, bring our law into conformity with that of some other nations in this limited particular, and nullifies some hypertechnical and unjust defenses in patent cases.

(3) S.2164 permits the owner of an invention to file an application for patent on it, by contrast with the present law's archaic provision that the inventor must file the application even when he has previously conveyed all his right and title to another. The merit of this change seems to me to be self-evident, and I believe that the Administration has approved at least some form of this concept.

(4) S.2164 requires the Patent Office to examine applications generally in the order in which they are filed. There must be some exception to this rule, but it is intended to put a stop to a practice now indulged in and to preclude the deferred examination of S.1042. It is my understanding that if an applicant will restrict his application to ten claims and do certain other things, then the Commissioner of Patents will now take that application up for examination out of order and ahead of other applications which may be far more involved and complicated inventions and hence command a claim pattern of more than ten claims. There is some good purpose behind the Commissioner's regulations on this issue, but in end result, I believe it to be somewhat unwise. In essence, it means that the toothpick and paper clip applications as a class are getting more prompt attention by the Patent Office than the applications for patents on computers and other complex inventions. Society is at least as much in need of prompt attention to the computer applications, in order that the new computer technology can be quickly published, as it is in need of prompt attention to patent applications of simple inventions that can be properly defined in ten claims. Further, S.1042 has express provision for other forms of long-delayed examination of patent applications, which I feel is unsound policy. S.2164's requirement of examination of applications in regular order would preclude such dilatory practice by the Patent Office and will preserve each inventor's turn in the Patent Office based on the dates of the applications.

It is interesting to not that all of those four principles to which I have thus far referred are incorporated in one form or another in S. 2597, introduced by Senator Dirksen, with what I call the "Hawaii" amendments.

It is thus my pleasure to give my wholehearted endorsement in principle to S. 2597 as a bill which is consistent in principle with the concepts of the Yarborough-Tower bill, S. 2164.

I note that S. 2597 makes some further amendments to the law that do not appear in S. 2164, and my best information is that those further amendments are sound, with one possible exception.

This possible exception is the fifth concept of the Yarborough-Tower bill S. 2164. This fifth item is one where S. 2164 differs from S. 2597 (with Hawaii amendments) on a point which I believe has substantive significance. It may be referred to as "Conditional Claim Practice."

Under the present law, and also under S. 2597, when the patent examiner rejects a part of an application erroneously, the appeal may take two or three years to process through our crowded administrative tribunal and courts. During this period the public is not informed of the potential patent, and the inventor is not permitted to enforce even that coverage which the examiner has already indicated is properly allowable to him.

If this delay in public availability of the patent applications, and this delay in the applicant's being able to enforce the coverage which the examiner has already allowed to him, serves any useful purpose, then we must examine the issue closely. But I am not advised of any important purpose being served by this delay that occurs after the final action by the examiner.

So the Yarborough-Tower bill, S. 2164, provides that the patent will pass on to issue after final action by the examiner without awaiting final disposition of the appeal.

Those claims which are on appeal will be published and will appear as "conditional claims" which are not enforceable until an appeal is won, if it is won, which may be three years later.

Meanwhile, the patentee can proceed to enforce the narrower claims which have already been allowed to him or the claims to some other specie of the invention which have already been allowed to him. He does not lose part of the life of those claims while he fights for the claims on appeal.

And further, the public is informed about the patent application which is on appeal and learns of its technology and the potential patent that it represents, so that industry's plans can be made with information instead of without information as to that application which is on appeal.

This is a degree of compromise of the applicant's trade secret before he learns of the scope of his ultimate protection, and this is not good. Still, if the applicant does not elect to abandon his application after completion of the ex parte examination by the patent examiner, it seems preferred in balance of all factors to issue and publish the patent during the sometimes protracted appeal proceeding.

Similarly, the present law provides for interferences between two inventors who seek to obtain patents on the same invention which they may have made almost simultaneously. These interferences are commonly fought out for five years, sometimes even ten years, and, on rare occasions, for fifteen years or more. Under present law this occurs while the applications for patent remain in secrecy. Moreover, the protection of the claims not in interference is being lost during the interference fight. And, if the concept of a patent's life being measured at 20 years from the filing date is adopted, the total life of those claims not in interference is being reduced by the length of the interference fight.

It is of great importance that we preserve the junior applicant's right to a patent if he can prove himself to be the first inventor. To this proper end, S. 2597 provides for a priority contest by means of oppositions by one inventor against another's application. But this mechanism again precludes the issue of the patent to either party until after the priority contest is concluded, perhaps years later. If we can avoid that mischief without creating important new mischief at the same time, we should do so. I think S. 2164 accomplishes this goal.

In accordance with S. 2164, the claims of each application which stand allowed will be issued promptly into a patent without delay for disposition of the interference. The claims which are in the interference contest will be published as "conditional claims" in the application which was the later-filed application.

In accordance with S. 2164, the patent will issue to the first applicant to file without delay for disposition of an interference. This brings the technology into the public domain promptly. If there be a junior application claiming the same invention, his patent also issues promptly without delay for disposition of the interference, but the claims to the subject matter which is in interference are published as "conditional claims" and are not enforceable unless and until the interference is decided and he wins those claims.

I think I am correct in saying that this Conditional Claim concept has recently drawn at least some interest in one form or another from the Department of Commerce. If this be so, then I am gratified.

Perhaps it would be good to consider the Conditional Claim concept as an amendment to S. 2597.

With such an amendment and the "Hawaii" amendments, S. 2597 incorporates in general concept all the principles of Yarborough-Tower S. 2164.

It is my belief that when your Subcommittee has completed its studies of all the proposals, you will find that those principles which are the heart of present Title 35 as amended by S. 2164, and which are also common to S. 2597, will effect significant improvement in our patent system without begetting original mischief of its own.

I have become convinced that the Administration's S. 1042 proposal, by contrast, begets more original mischief of its own than it cures.

Thank you for the opportunity to present these views.

JOHN TOWER.

TRADEMARK SOCIETY, INC.

Washington, D.C., January 19, 1968.

Subject: S. 2597.

Hon. JOHN L. McCLELLAN,

Chairman, Subcommittee on Patent, Trademarks, and Copyrights, Senate Committee on the Judiciary, Old Senate Office Building, Washington, D.C.

DEAR SENATOR McCLELLAN: I am transmitting herewith a Resolution, approved January 16, 1968 by the Executive Committee of the Trademark Society, Inc., an organization of Federal Trademark Examiners dedicated to the promotion of

trademark practice and ethics, suggesting a specific amendment of S. 2597. This draft provides for the inclusion of judges, qualified and experienced in Trademark law and practice, on the bench of the Court of Customs and Patent Appeals.

Thank you for your courtesy.

Very truly yours,

BUSHROD C. WASHINGTON, *President.*

RESOLUTION

Whereas, Senate bill S. 2597, introduced by Senator Dirksen in the United States Senate on October 30, 1967, and referred to the Senate Committee on the Judiciary, and identical House bill H.R. 13951, introduced by Representative Poff on November 9, 1967, and referred to the House Committee on the Judiciary, provides for the general revision of the Patent Laws and for other purposes, and one of these other purposes as set forth on pages 37-40 of S. 2597 and H.R. 13951 provides for the amendment or Section 2 (a) of Chapter 9 of Title 28 of the United States Code, regarding the appointment of additional judges and qualifications of the judges of the Court of Customs and Patent Appeals, and

Whereas, the Court of Customs and Patent Appeals has appellate jurisdiction over the technical subject matter of patents and also the technical subject matter of trademarks, in addition to appeals from the United States Customs Court and certain decisions of the United States Tariff Commission, and

Whereas, the Subcommittee on Patent, Trademarks and Copyrights of the Senate Judiciary Committee is holding hearings on January 30, January 31, and February 1, 1968 on the general revision of the Patent Laws, including S. 2597, with its provision on pages 37-40 regarding the appointment of the additional judges and qualifications of the judges of the Court of Customs and Patent Appeals,

Be it resolved, that the Trademark Society, Inc., through its policy making Executive Committee, believes that Senate bill S. 2597 and identical House bill H.R. 13951 should be amended on page 38, lines 1 and 2 so that the sentence which reads: "At least six judges of the Court of Customs and Patent Appeals shall be specially qualified in the law of patent", shall be amended to read: "At least six judges of the Court of Customs and Patent Appeals shall be specially qualified in the law of trademarks."

The Executive Committee of the Trademark Society, Inc. specifically requests that this resolution be made a part of the hearing record of the Senate Judiciary Subcommittee on Patents, Trademarks and Copyrights on the subject matter of general revision of the Patent Laws, and for other purposes, at the hearing to be held on January 30, 31 and February 1, 1968.

WESTINGHOUSE ELECTRIC CORP.,
Pittsburgh, Pa., February 22, 1968.

Subject: S. 1042 and S. 2597.

Hon. JOHN L. McCLELLAN,

*Chairman, Senate Subcommittee on Patents, Trademarks, and Copyrights,
Committee on the Judiciary, U.S. Senate, Washington, D.C.*

DEAR SENATOR McCLELLAN: We are taking this opportunity to bring to your attention the views of Westinghouse Electric Corporation on the revision of the present patent statutes. In general, we believe that S. 2597, amended to incorporate current ABA recommendations and modified in accordance with Commissioner Brenner's testimony before your subcommittee on January 30, 1968, while not entirely what we would advocate if we were drafting the legislation, appears to be a reasonable compromise and will serve a beneficial purpose. In our opinion, the following features seem worthy of additional comment or should be added to any bill reported out:

DEFERRED EXAMINATION

We strongly urge upon your subcommittee that full consideration be given to instituting a system of deferred examination, better called "selective examination" because under the systems proposed embodying this principle, all applications are not automatically deferred and any applicant who wishes prompt examination can, by paying an appropriate fee, have his application examined at the earliest practicable time by the Patent Office.

Witness after witness has rejected selective examination on the argument that the Patent Office backlog does not now require this change in practice. However, such witnesses are avoiding the principal argument advanced in favor of selective examination. Thus, the principal argument advanced by proponents has nothing to do with the backlog situation and, in fact, these persons endorse selective examination even if there is no backlog of any kind.

Selective examination has great flexibility, provides options to applicants and the public, is economically desirable and, in our opinion, will be necessary in the years to come. This approach is imaginative and one of the most interesting and prospectively useful changes proposed.

As usually advanced, under selective examination an applicant can elect prompt examination or defer examination for a prescribed period of years. With this arrangement, the Patent Office will be called upon to examine only those applications which prove valuable in the marketplace, and those of little or no value will be published in due course to the benefit of the public. However, neither the applicant nor the Patent Office would be required to devote scarce manpower to the examination of applications proving relatively unimportant in the marketplace or to the technology. Curiously, opponents of selective examination avoid comment on this obviously desirable saving.

As technical experts, the U.S. Patent Office faces a demand for a substantial increase in staff in the future with the continued expansion of technology. This is partially true because of the volume, but the increasing complexity of our technology will continue to require more time per application in the future. If 50 percent of the applications filed by U.S. applicants are not examined, the present staff could handle nearly twice the volume. It would be our hope that the Patent Office could, with less demand on the examining corps, recede from the rigidity of present compact prosecution practices and still handle a very substantial increase in load.

REMEDY FOR INFRINGEMENT BY PRODUCT MADE IN ANOTHER COUNTRY

S. 271(b) of S. 1042 proposes that "Whoever, without authority of the patentee, imports into the United States, *for purposes of trade or use in trade or industry*, a product made in another country by a process patented in the United States shall be liable as an infringer *provided patent protection for the process is not available in such country.*" (*underlined added*)

§ 271(b) of S. 2597 deletes the *underlined* words. We support the S. 2597 language. The original language gives special privilege to the Government and no reason is seen why the Government should be permitted to flaunt inventions patented by its citizens (among others).

It is also believed the proviso at the end of paragraph (b) of the Administration bill should be deleted. Otherwise, every United States patentee would be obligated to seek process patent protection in all foreign countries where such protection is available. This provision is of extremely limited value and would discriminate severely against American applicants. No reason is seen why an American inventor should be compelled to incur the substantial costs involved in obtaining widespread foreign patent protection and enforcement unless he wishes to do so for reasons other than for the protection of his invention in the United States. It must be understood that it will not be sufficient to obtain a foreign patent in the major foreign countries, but an inventor must obtain protection in every foreign country where protection is available in order to prevent a would-be infringer from setting up operations in any one single country where protection is not obtained. Thus, particularly in view of maintenance fees in most foreign countries, an intolerable burden would be placed on American inventors, particularly on those not strong financially.

If a process patented in the United States is to be protected against importation of products, such protection should be available regardless of the country from which the product is imported so that less affluent and less knowledgeable United States patentees are not deprived of this protection. Small businesses and independent inventors can rarely afford the high cost of multiple filings, prosecutions, and maintenance of foreign patents in even the major countries of the world. The discrimination against claims in process form should be removed. Note also that the President's Commission, in its Recommendation XXI, made no requirement that process patent protection not be available in the exporting country.

EXTENSION OF TERM

§ 154(c) of S. 1042 provides for the extension of the term of the patent if the application had been ordered maintained in secrecy. In such cases the extension would be for a period equal to the delay in issuance of the patent. This appears to be a desirable change needed to compensate for the portion of the term which otherwise would be lost from the twenty-year patent term proposed in § 154(b) and should added to § 154 of S. 2597.

There are other situations where the commercial value of a patent will be limited by reason of Government action or failure of Government action. Regulatory activities of a number of agencies, including Food and Drug, Federal Aviation and the U.S. Coast Guard, prevent commercialization or otherwise affect the public use of many products until a license or other form of approval is obtained. We believe it appropriate to extend patent protection in a similar way to that granted in connection with secrecy orders.

CORRECTION OF NAMED INVENTOR

This section adopts the recommendation of the President's Commission (Recommendation V, paragraph 3) and results in a beneficial revision of old § 256 so that patents having improperly named sole inventors may be corrected as well as correction of improperly joined or failure to include a joint inventor now provided in old § 256. To be sure that sole inventors are included, we urge insertion in line 3, after "time", the words—by adding, deleting or substituting—.

FIELD-OF-USE LICENSING

Among recommendations of the President's Commission was one relating to field-of-use licensing under Recommendation XXII. It is understood that S. 1042 omitted legislative recognition of this recommendation because of the views of the Department of Justice, Assistant Attorney General Donald F. Turner, in testifying before Subcommittee No. 3 of the House Judiciary Committee on April 20, 1967, indicated that Department's views. It is incontestable that the public should be protected from abuse flowing from the possible use of patents to restrict competition. This aspect of the public interest, however, is balanced to some extent by the public interest in the appropriate licensing of inventions. It seems to us that encouragement of licensing to the maximum is very much to be preferred. It seems quite appropriate that the Congress determine the dominant national policy between the desirability of maximizing the use of inventions and the possible use of licensing to limit competition. Field-of-use licensing as proposed by the Commission is not incompatible with relief in situations where such licensing unreasonably hinders competition.

In support of the Commission's Recommendation XXII, there are very practical reasons for field-of-use licensing. These are:

1. There cannot be a meeting of the minds unless all relevant factors are known and understood. These include:

- (a) Anticipated or existing volume of sales.
- (b) Profit margin.
- (c) Fair royalty.
- (d) Availability of substitutes.
- (e) Degree of utility.
- (f) Extent of demand.
- (g) Breadth of invention.
 - (1) Generic vs. species or improvement.
 - (2) Entire product vs. component.
- (h) Expected saving.
- (i) Necessity for further technical development.
- (j) Necessity for market development.
- (k) Necessity for further investment.

2. Even when a number of different applications are apparent, the same terms and conditions are not necessarily equally appropriate.

(a) The royalty base may be different. It is not possible to define the royalty base until one knows what the device is.

(b) If royalty is a fixed sum per device (rather than percent of sales), the fixed sum could reasonably be different for different devices.

(c) If there is more than one patent licensed, the list of patents may not include all of those necessary for a different device and may include some which could not be used in the other field. That is, one field may require

patents A, B and C; another field, patents A, B, D and E, and another field, patent A only. The agreement should not force on the licensee patents that he does not want.

(d) An agreement in one field may include manufacturing information, but the licensor may not have information to give in another field.

(e) The royalty might be a percentage of selling price in one field where the patented device is sold per se, but so many cents per device or on some other basis in another field where the patented device is sold only in combination with something else not covered by the patent.

3. It is not always to a licensee's advantage to take the broadest possible license.

(a) Avoids acknowledgment of validity in some areas (limit license to scope and term).

(b) One design may be clear infringement; another may not.

(c) A limited license enables him to limit approvals and negotiations to only a particular division of multi-division company.

(d) Wants to be free to negotiate each situation.

(e) Wants to commit himself only for a particular product or particular line and to eliminate any commitment on speculative areas.

(f) May be able to get a lower royalty rate in a field where a licensor is not using the patent since it will not reduce the licensor's business.

(g) May be able to get a lower paid-up lump sum for a license for a limited field, whereas a much larger lump sum would be required for all fields, and licensee might not be able or wish to pay the larger sum for all fields, especially if he has no use for the rights in the other fields.

(h) May be able to get, for a limited license, a low annual ceiling or a low ceiling on total royalty to be paid, but the ceilings for a license for all fields would be so high the licensee would never reach the ceiling to get any benefit from it if he operates in only one field.

(i) Might be able to get a sliding scale reduction in royalty rate, i.e., 5% first \$100,000, 4% next \$100,000, etc., with small brackets for a limited field, but the brackets for all fields would be so large as to give the license no benefit if he operates within less than all fields.

(j) May want separate licenses for each field so that he may terminate separately. He may want to design around the patent in one field and then cancel, but not be able to do so in another field. If there is a minimum royalty in each agreement, he can save the minimum by cancelling in the field where he stops selling.

(k) May want separate licenses for each field so that he may assign the licenses with his business in each field, whereas one license is indivisible.

4. It is not always to the advantage of a licensor to give broadest license.

(a) Wants freedom to negotiate each situation.

(b) Enables limiting approvals and negotiation to each situation.

(c) Patent may apply to entirely different products and/or industries and agreements in each would have entirely different terms due to unique problems and differences in structures.

5. A patent owner is not required to grant licenses, and frequently does not license single use patents; however, the right to license fields-of-use outside his own field encourages the patent owner to make the patented invention available to a greater segment of the public through field-of-use licenses.

FIRST-TO-FILE

The Administration's compromise on this issue is commendable and presents a generally acceptable position. We believe, however, that one aspect justifies further consideration. Under the compromise, an applicant can only carry his invention date back one year prior to his filing date. Jumping from an unlimited carry-back to only one year may be too great a change. No statistical necessity has been offered in support.

We would endorse a two-year limitation. Our reason is that technology is becoming more complex and one year is probably insufficient time reasonably to determine the desirability of filing an application in a significant number of cases.

Very truly yours,

T. L. BOWES,
General Patent Counsel.

DEPARTMENT OF AGRICULTURE,
Washington, D.C., May 17, 1968.

Hon. JOHN L. McCLELLAN,
U.S. Senate.

DEAR SENATOR McCLELLAN: Representatives of the National Council of Commercial Plant Breeders recently met with Department personnel to discuss the technical aspects of variety protection for sexually reproduced crops. Representatives of the U.S. Department of Commerce, the American Seed Trade Association, and legal advisers of industry also attended. The plant patent proposal, as well as alternative systems for variety protection, was discussed.

Concern was expressed by the seed industry with regard to the statement the Department sent you on February 29, 1968. They expressed fear that the statement might be interpreted as questioning the capability of the United States seed industry to reproduce seed of sexually propagated varieties and still maintain their inherent high qualities for use by the U.S. farmer and international trade.

It should be emphasized that the Department's statement was addressed toward difficulties that are anticipated in determining varietal distinctness in cases of infringement litigation rather than genetic shifts which might impair economic productivity. In further clarification the group asked that I transmit to you the following statement which was jointly developed and adopted:

Although sexually reproduced varieties are basically different in exactness of uniformity from those reproduced asexually, it is the consensus of the group of that scientists using modern techniques can propagate a sexually reproduced variety acceptably true to its type.

Sincerely yours,

GEORGE L. MEILREN, *Assistant Secretary.*

U.S. DEPARTMENT OF COMMERCE,
PATENT OFFICE,
Washington, D.C., May 31, 1968.

Hon. JOHN L. McCLELLAN,
Chairman, Subcommittee on Patents, Trademarks, and Copyrights, Committee on the Judiciary, U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: As you know from the testimony regarding plant patents presented before your Subcommittee on Patents, Trademarks, and Copyrights on February 1, 1968, a significant portion of the agricultural community, principally those engaged in the seed trade, wishes to extend patent protection to include sexually reproduced plants (those grown from seed). To this end, Amendment No. 511 to the Administration's Patent Reform bill, S. 1042, has been introduced, which would provide for the patenting of sexually, as well as asexually reproduced plants.

The controversy over the plant patent statute arose, in part, from the Report of the President's Commission on the Patent System of November 17, 1966, which recommended that "All provisions in the patent statute for plant patents shall be deleted, and another form of protection provided," and urged that further study be undertaken to determine the most appropriate means of protection.

The Patent Office, because of the recommendation of the Commission, published a Request for Comments in the Federal Register on January 3, 1968, and in the Official Gazette of the Patent Office on January 16, 1968, soliciting the views of interested persons on this recommendation of the President's Commission. The time for response to the Request was set, by subsequent notices in each publication, for April 1, 1968.

The responses which have been received to the Request show the agricultural community to be divided on the issues presented. The agricultural community generally favors continuing the present plant patent provisions for asexually reproduced plants although several various alternatives to patenting were suggested including the registration of plant variety names to provide a trademark type of protection and the institution of a governmentally operated planters rights system similar to those of several major European countries. There appears to be, however, a wide divergence of opinions regarding the propriety of providing patent protection for sexually reproduced plants.

A substantial number of respondents point to difficulty in administering a plant patent system enlarged in scope to afford protection for sexually reproduced plants. Many of these correspondents assert that scientific techniques have

not yet developed to the stage when even experts can identify with certainty many sexually reproduced varieties or the particular characteristics of these varieties. Because of this difficulty, they feel that patent infringement could be determined only at great expense to litigants and with uncertain results.

Another important argument of this segment is that governmental research programs of the state agricultural organizations and those of the United States Department of Agriculture would be hampered if forced to operate under such an enlarged statute. These governmental organizations may find it necessary to seek patent protection for their research, which they do not now do, and may still not be free to operate in certain areas of research.

Respondents seeking to enlarge the plant patent statute contend that patent validity and infringement questions do not present insurmountable technological difficulties and an enlarged statute, in any event, would not be detrimental to those operating under the present statute. They feel that funds which might be expended toward developing sexually reproduced plants are now diverted away from these crops to less profitable research effects due to a lack of meaningful protection. For instance hybridized crops are protectable by keeping the identity of the parent plants secret, so the research funds expended by the seed breeding portion of the private sector are principally spent there. Were non-hybridized crops, including the grain and cereal varieties, protectable under the patent system, they would expect a substantial increase in research in sexually reproduced plants generally, not limited to hybridized varieties.

The responses to the Request have not established that the factual and legal requirements for the granting of patents can be satisfied under the statutory change proposed by Amendment No. 511. Additional scientific evidence is needed to establish the feasibility of identifying varieties of sexually reproduced plants and their characteristics. Otherwise, the value of patents for sexually reproduced plants would be questionable, and their enforcement uncertain. The Department for these reasons, would prefer to withhold comment on the Amendment until its proponents provide more convincing factual evidence that the Amendment is both feasible and necessary.

Respectfully,

EDWARD J. BRENNER, *Commissioner.*

U.S. SENATE,
SELECT COMMITTEE ON SMALL BUSINESS,
Washington, D.C., May 9, 1968.

HON. JOHN L. McCLELLAN,
Chairman, Senate Subcommittee on Patents, Trademarks, and Copyrights,
Washington, D.C.

DEAR MR. CHAIRMAN: After my appearance before your committee on Patents, Trademarks, and Copyrights, I inquired of the Commissioner of Patents, Mr. Edward J. Brenner, as to the detailed costs of establishing Patent Search Centers. His reply is enclosed, and I hope you will find it of value. I would be pleased to be informed of any progress on my bill, S. 1377.

Sincerely yours,

GAYLORD NELSON, *U.S. Senator.*

U.S. DEPARTMENT OF COMMERCE,
PATENT OFFICE,
Washington, February 6, 1968.

HON. GAYLORD NELSON,
U.S. Senate,
Committee on Labor and Public Welfare,
Washington, D.C.

DEAR SENATOR NELSON: I am responding herewith to your letter of January 30, 1968, regarding the cost of establishing and operating Patent Search Centers as proposed by your bill S. 1377.

I am happy to supply the requested information but feel I should make clear that at this juncture in planning it cannot be regarded as the final cost data which you desire. There are, as yet, a number of unresolved questions which have a significant bearing on the capital outlay and operating costs involved in establishing and maintaining a comprehensive microform search file system. For example, many features of the search viewer contemplated for use in the Patent Office and in search centers will have to be put to test before proceeding with

quantity procurement, and at this time we do not know what changes may be required or what effect they might have on the ultimate cost of this essential equipment.

Within this context my staff has made the most reasonable cost estimate that can be presently developed. The details are set forth in the attachment. From them, it appears that a center designed to accommodate 25 persons in simultaneous use of the classified patent files at microfilm search readers could be established at a capital outlay of \$493,000. The annual cost of operating such a center, including space and utilities, is estimated at \$70,000.

A center accommodating twice as many searchers could be established at an additional outlay of \$60,000 and would cost about \$12,000 more a year to operate.

With respect to the location of Patent Search Centers, I feel that as patients are a specialized source of information of major significance to industrial and government supported and conducted research and development collections should be placed amidst the more concentrated technical communities for relative ease of access to the potential individual user. This suggests that an order of priority for locating search files be developed which gives appropriate consideration to such pertinent factors as numbers of technical and scientific personnel engaged in R & D; research expenditures, including allocations of federal funds; industrial activity; level of inventive activity and patent awareness; and, possibly, some criteria of national or regional significance of research objectives. While I am not prepared at this time to suggest where these optimum sites may be, or their relative importance, studies concerned with developing information as the basis for such recommendations will be shortly undertaken. I would welcome the opportunity to discuss this matter with you at some future date.

Sincerely yours,

EDWARD J. BRENNER, *Commissioner*.

[Attachment]

ESTIMATED COST OF ESTABLISHING A PATENT SEARCH CENTER

CAPITAL OUTLAY

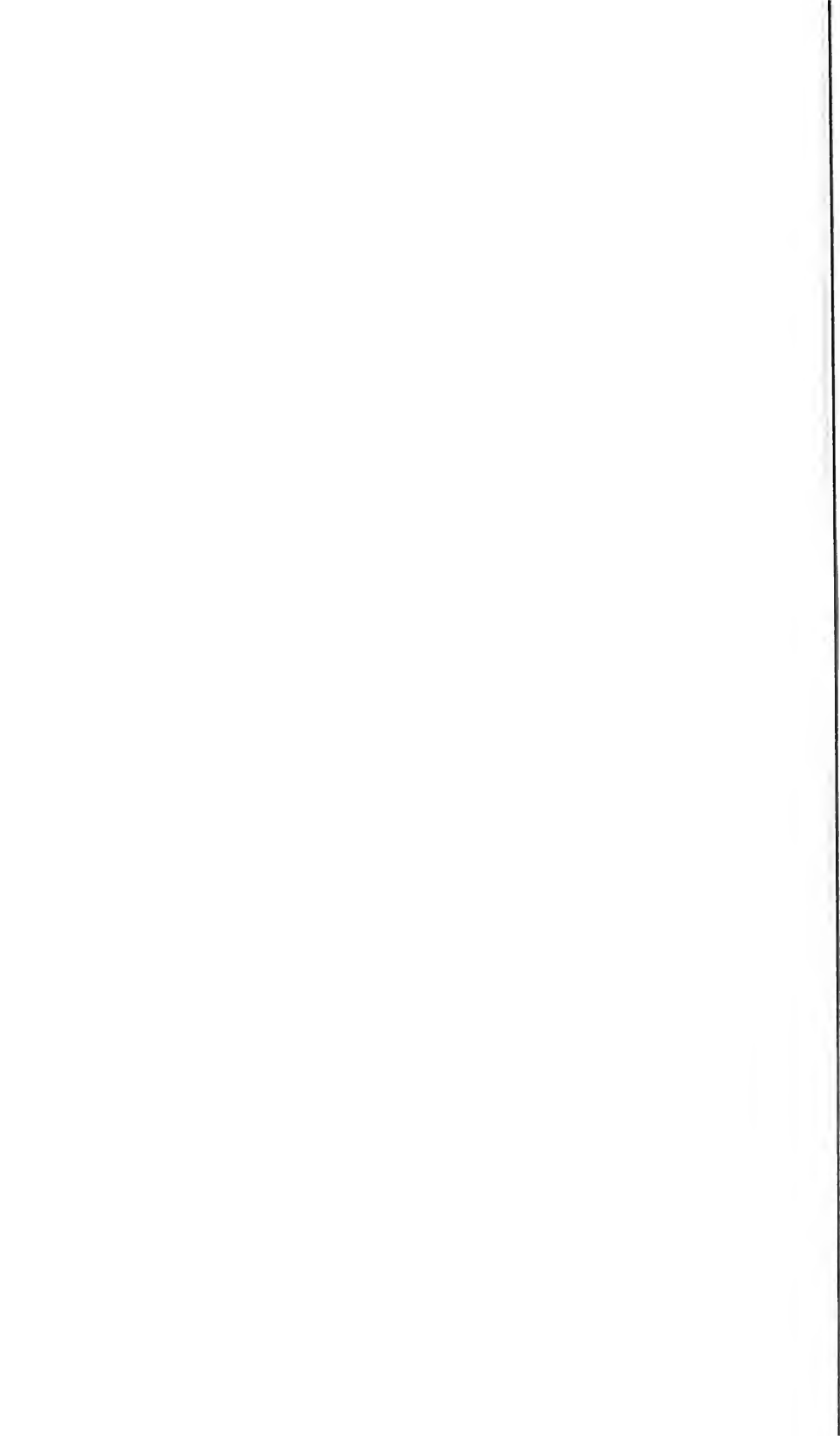
	25 searchers	50 searchers
1 numerical aperture card file containing 3,360,000 patents (3,950,000 aperture cards) at an estimated cost per card of \$0.028.....	\$110,000	\$110,000
1 subject-matter classified aperture card file containing 7,600,000 patents (8,900,000 aperture cards) at an estimated cost per card of \$0.028.....	\$250,000	\$250,000
140 file cabinets at an estimated unit cost of \$420.....	\$57,000	\$57,000
Aperture card search readers with (semiautomatic card feed mechanism) at an estimated unit cost of \$1,720.....	\$45,000	\$90,000
Number of units.....	25	50
Single aperture card reference readers without (semiautomatic card feed mechanism) at an estimated unit cost of \$400.....	\$2,000	\$2,800
Number of units.....	5	7
Paper copy enlarger-printer(s) at an estimated unit cost of \$4,000.....	\$4,000	\$8,000
Number of units.....	1	2
Aperture card copiers at an estimated unit cost of \$2,100.....	\$14,700	\$18,900
Number of units.....	7	9
Desks and chairs for search use at an estimated unit cost of \$200.....	\$5,000	\$10,000
Number of units.....	25	50
Miscellaneous office furniture including furnishings for the search center staff.....	\$5,000	\$5,000
Total.....	\$492,700	\$551,700

SPACE (SQUARE FEET AND COST)

Classified aperture card file cabinets (100 units at 10 square feet per unit).....	1,000	1,000
Numerical aperture card file cabinets (40 units at 10 square feet per unit).....	400	400
Stations for search file use (75 square feet per station).....	1,875	3,750
Equipment (other than readers).....	520	720
Staff.....	220	220
Growth of patent files over 10 year period.....	400	400
Total (square feet).....	4,415	6,410
4,415 square feet at an estimated cost of \$5 per square feet per year (including heat, light, and maintenance).....	\$22,000	
6,410 square feet at an estimated cost of \$5 per square feet per year (including heat, light, and maintenance).....		\$32,000

OPERATING COSTS

Personnel (including 8 percent benefits):		
Information specialist (GS-11).....	\$10,500	\$10,500
2 clerks (GS-4 and GS-5).....	11,800	11,800
Numerical aperture cards containing new issues of patents and replacement cards for patent with additions (certificates of correction). Estimated annual average over 10-year period, 74,000 patents (86,500 aperture cards) at an estimated cost per card of \$0.03.....	2,600	2,600
Classified aperture cards containing new issues of patents, replacement cards for patents with additions (certificates and correction) and patents that have been reclassified. Estimated annual average over 10-year period, 413,000 patents (483,000 aperture cards) at an estimated cost per card of \$0.03.....	14,500	14,500
4 filing cabinets at an estimated unit cost of \$450.....	1,800	1,800
Maintenance, of readers, aperture card copiers, and paper copy enlargers, estimated to be approximately 5 percent of cost.....	3,300	6,000
Communications, supplies, and materials.....	2,800	2,800
Total.....	47,300	50,000
Capital outlay.....	492,700	551,700
Annual expenses:		
Space.....	22,000	32,000
Operating costs.....	47,300	50,000
Total.....	69,300	82,000



BOSTON PUBLIC LIBRARY



3 9999 05706 7462

